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REGISTER OF AIR POLLUTION ANALYSES. VOLUME 2

H. D. Townsend, et al

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1961

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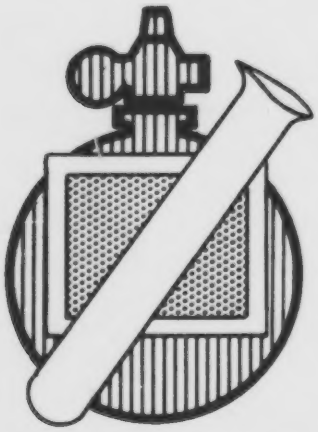

Register of AIR POLLUTION ANALYSES

volume 2

January 1, 1956 - June 30, 1959

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Register of
AIR POLLUTION ANALYSES

Volume 2

January 1, 1956 - June 30, 1959

A record of community air sampling and analyses performed in the United States and Territories during the period January 1, 1956 to June 30, 1959

Compiled for the U. S. Public Health Service by the Engineering and Industrial Experiment Station, University of Florida, Gainesville, Florida, under Contract No. SAph-73387

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INTRODUCTION

THE REGISTER

In 1955, the United States Public Health Service recognized the need for compiling, under one cover, the scattered information relating to past air pollution surveys. Their efforts and those of many contributors, resulted in the 1958 publication of the "Register of Air Pollution Analyses", as of January 1, 1956. (PHS Publication 610.) The information presented is useful for studies of pollution levels in specific communities, for epidemiological studies of the effect of air pollution of health, for comparison of pollution levels in various communities, for sampling and analytical techniques, and to facilitate the compilation of the results of past surveys for publication.

In order to keep abreast of the rapid growth of air pollution surveys since 1956, the United States Public Health Service contracted with the University of Florida, in 1959, to prepare a supplement to the "Register of Air Pollution Analyses" for the period from January 1, 1956 to June 30, 1959. This supplement is a record of community air sampling and analyses, including the National Air Sampling Network of the U. S. Public Health Service performed during this period.

More than 100 different sample categories and sub-categories are reported from 400 cities in 300 counties, from all 50 states and Puerto Rico. The Register also lists literature references for methods of analyses and reports of surveys. Addresses of the agencies to which inquiries may be sent for further information are also included.

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PREPARATION OF THE REGISTER

In the fall of 1959, the University of Florida staff sent questionnaires to 340 agencies and individuals known to have an interest or engaged in air pollution activities. Using the Public Health Service's experience in drafting the first Register, the first questionnaire was designed to carry an appeal for replies and furnish the necessary information for publication. At regular intervals, follow-up letters were sent out and in April, 1960, the survey was brought to a conclusion. Numerous air pollution control agencies, health departments, universities, research institutions and individuals, contributed information as to their air pollution activities. Data from the National Air Sampling Network were prepared by Air Pollution Engineering Research of the Public Health Service. Literature and analytical references were checked by the University. In the final tally, over 360 agencies and individuals were contacted from whom 300 replies were received.

The majority of the questionnaires were answered in the manner recommended in the accompanying instruction sheet. In some questionnaires, it was necessary for the editors to interpret the data for inclusion in the Register. Other agencies submitted data on forms more in keeping with their own record system which in all cases was satisfactory for editorial purposes. Some agencies included reports of surveys or literature from which it was possible to abstract the needed information. Some agencies replied that they were not at present carrying out active air pollution programs. The coded data for the National Air Sampling Network were placed along with the other entries for each locality, thereby listing the total air sampling activity for a defined area. Except for beta counts on the NASN samples, data for radioactivity and pollen were not included as this information is regularly reported by other agencies or foundations. Generally, a sampling program must have extended over a period of at least three days to be included.

Every effort was made to record all air sampling programs from which data are publicly available. Suggestions as to content or form will be greatly appreciated for use in any future volumes.

THE NATIONAL AIR SAMPLING NETWORK STATIONS

The National Air Sampling Network was established by the Public Health Service in 1953. The present Network is operated as part of the Public Health Service air pollution research activities, at the Robert A. Taft Sanitary Engineering Center in Cincinnati, Ohio. Although the Network is a continuing project, information pertaining to samples collected after June 30, 1959 is not presented herein. This is in keeping with the terminal date set for information concerning all other sampling projects listed in this volume of the Register.

Detailed descriptions of the Network project and resulting data are presented in PHS Publication 637, entitled, "Air Pollution Measurements of the National Air Sampling Network, 1953-1957." This publication may be bought from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at $2.00 per copy. Further presentations of Network data will be published periodically.

Data for Network stations are on record at the Robert A. Taft Sanitary Engineering Center and at the offices of the organizations appearing in the "Organization" column. State health departments or state air pollution control agencies also have data on file for stations operated in their respective states.

HOW TO USE THE REGISTER

Throughout the Register, the states, territories, counties, and cities are alphabetically listed in their political subdivisions.

"Sample Categories" lists alphabetically, the air pollutants measured and when necessary, their subcategories. In the tabulations, National Air Sampling Network stations are identified by entries such as "N.A.S.N. - 5A" appearing in the "Sample Categories" column. The "5A" portion of the designation refers to the laboratory analyses performed on the sample, listed in Appendix D.

"Organization" designates the names of the agencies that directed or participated in the program for each sample category.

"Dates" (month, day, and year) specifies the calendar period over which the program was conducted.

"No. of Stations" is the number of sampling stations operated during the program. Unless stated otherwise, the number refers to stations where the equipment remained throughout the entire sampling program. If the equipment was moved for site to site, or in a varied pattern, it is so specified.

"Sampling Period" is the length of time that the equipment was operating for each sample collected. Automatic sampling and recording equipment are designated as "continuous."

"Sampling Frequency" is the number of samples collected over a specified time period. Automatic sampling and recording or sequential equipment are designated as "continuous."

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There are only code numbers in the column "Appendix A" (Sampling Equipment). The key to these code numbers is listed numerically in Appendix A where the type of sampling equipment is described by trade name, and/or manufacturer. Sampling equipment is listed under the appropriate sample classification of either dustfall, gases, suspended particulate, or special. In some instances, two code numbers are used to identify the sampling equipment; for example, $\frac{63}{69}$ indicates a high volume sampler with 8" x 10" glass fiber filter.

Similarly, the code numbers in the column "Appendix B" (Analytical Methods) are keyed numerically in Appendix B for the method of analysis. Sample categories are listed alphabetically followed by the methods used for analysis. In addition, a literature or other reference to identify the analytical procedure is given. This Appendix, therefore, serves a twofold purpose: (1) identifying code numbers, and (2) listing the various methods of analysis used for a given pollutant. Only those analytical references listed in the returned questionnaires were included, as it was felt that this Register should represent activities of those engaged in air pollution field work.

Code numbers are also used in the column "Appendix C" (Agencies and References). The key to this code is found in Appendix C which lists the agency from which further information may be obtained, and also literature references.

The final column entitled "Notes" has code numbers representing additional information regarding the sample program. The key appears on the last page of the state to which the notes apply.

Abbreviations are defined in an alphabetical listing appearing in Appendix E.

The Sample Category Index lists, alphabetically, all of the sample categories and sub-categories appearing in the Register. Under each category there are listed the states and cities in which samples have been collected and analyzed. The numbers refer to pages where the information is listed in the Register.

STATE: ALABAMA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Baldwin											
Fort Morgan (N.U.)	Suspended Particulate	Baldwin C.H.D. State Park									
	N.A.S.N.-5	Service, &	1/ 8/58	12/31/58	1	24 hr.	1/ 2 wk.	63	82	B-1	
	N.A.S.N.-2A	U.S.D.H.E.W., P.H.S.	1/16/58	6/13/58	1	24 hr.	1/ 2 wk.	69		W-8 N-3	
Jefferson											
Bessemer	Suspended Particulate	Jefferson C.H.D. U.S.D.H.E.W.,								E-10	
	Total Weight	P.H.S.	7/16/56	7/31/56	1	24 hr.	1/ day	63	82	J-3	B
	Benzene Sol.		8/20/56	9/ 5/56	1	24 hr.	1/ day	69		N-3	
Jefferson											
Birmingham	Suspended Particulate	Jefferson C.H.D. U.S.D.H.E.W.,									
	N.A.S.N.-6	P.H.S.	1/ 2/57	12/26/57	1	24 hr.	1/ 2 wk.	63	82	J-3	A
	N.A.S.N.-5		1/22/58	12/19/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/11/59	6/29/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate	Jefferson C.H.D. U.S.D.H.E.W.,								E-10	
	Total Weight	P.H.S.	7/16/56	7/31/56	2	24 hr.	1/ day	63	82	J-3	B
	Benzene Sol.		8/20/56	9/ 5/56	2	24 hr.	1/ day	69		N-3	
Mobile											
Mobile	Suspended Particulate	Mobile C.H.D. & U.S.D.H.E.W.,						69		N-3	
	N.A.S.N.-10	P.H.S.	1/ 2/58	12/22/58	1	24 hr.	1/ 2 wk.	63	82	M-26	
Montgomery											
Montgomery	Suspended Particulate	Montgomery C.H.D. U.S.D.H.E.W.,						69		N-3	
	N.A.S.N.-10A	P.H.S.	1/ 3/59	6/24/59	1	24 hr.	1/ 2 wk.	63	82	M-30	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: ALABAMA

A. During a two-year period beginning September 1, 1957, special samples were collected at three stations for a cancer study under the auspices of the National Cancer Institute. Samples were collected using high-volume samplers with 8" x 10" glass fiber filters and one low-volume sampler, 12 cfm positive displacement pump, with an 8" x 10" millipore filter.

The high-volume samples were collected at the rate of 3 per week per station with sampling periods of from 48 to 72 hours. Step-down voltage transformers were used to reduce the sampling rate to obtain the longer sampling periods. The low-volume samplers were operated continuously until the pressure drop across the filter exceeded 5" Hg., or at the end of 30 days, whichever occurred first.

The high-volume samples were analyzed for total weight, benzene solubles, and radioactivity. The benzene solubles were fractionated into water soluble, bases, acids, and neutrals. The neutral fraction was in turn separated into aromatic hydrocarbons, aliphatic hydrocarbons, and oxygenated components. The low-volume samples were weighed and the collected material mechanically removed for use in animal experiments. Data from this study are available from the Robert A. Taft Sanitary Engineering Center (see agency C-25 or N-3).

B. Selected samples analyzed for metals, chlorides, nitrates, and sulfates. Steel Strike 1956.

STATE: ALASKA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Anchorage	Suspended Particulate	Arctic Health Research Center &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	1/16/57	12/29/57	1	24 hr.	1/ 2 wk.	63	82	A-11	
	N.A.S.N.-5	P.H.S.	1/14/58	12/29/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/14/59	6/30/59	1	24 hr.	1/ 2 wk.				
Point Woronzof (Cook Inlet) (N.U.)	Suspended Particulate	Arctic Health Research Center									
	N.A.S.N.-7	& U.S.D.H.E.W.,	2/ 1/56	12/11/56	1	24 hr.	2-10/ mo.	63	82	A-11	
	N.A.S.N.-8A	P.H.S.	11/13/57	12/29/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2		1/11/58	12/26/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 4/59	6/27/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: ARIZONA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Coconino											
Grand Canyon Nat'l. Park (N.D.)	Suspended Particulate	National Park Service &									
	N.A.S.N.-8	U.S.D.H.E.W.,	6/14/57	12/30/57	1	24 hr.	1/ 2 wk.	63	82	G-7	
	N.A.S.N.-2	P.H.S.	1/16/58	12/21/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 3/59	6/20/59	1	24 hr.	1/ 2 wk.				
Maricopa											
Phoenix (Suburban)	Suspended Particulate	U.S.W.B. & U.S.D.H.E.W.,						69		N-3	
	N.A.S.N.-2A	P.H.S.	5/ 2/59	6/20/59	1	24 hr.	1/ 2 wk.	63	82	U-5	
Maricopa											
Phoenix	Carbon Monoxide	Ariz. S.D.H.	1/16/58	1/22/58	1	60 min.	1/ day	24	16	A-12 A-20	
	Nitrogen Dioxide	Ariz. S.D.H.	1/16/58	1/22/58	1	30 min.	5/ day	31	49	A-12 A-20	
	Oxidant	Ariz. S.D.H.	1/16/58	1/22/58	1	10 min.	8/ day	36	59	A-12 A-20	
	Sulfur Dioxide	Ariz. S.D.H.	1/16/58	1/22/58	1	60 min.	1/ day	36	78	A-12 A-20	
	Suspended Particulate	Maricopa C.H.D. & U.S.D.H.E.W.,									
	N.A.S.N.-8A	P.H.S.	1/ 1/57	12/30/57	1	24 hr.	1/ 2 wk.	63	82	M-6	
	N.A.S.N.-12		1/ 2/58	12/30/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-10A		5/ 2/59	6/20/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate	Ariz. S.D.H.									
	Total Weight		1/16/58	1/22/58	1	24 hr.	1/ day	67	-	A-20 A-12	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: ARIZONA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Maricopa Phoenix	Suspended Particulate Soiling	Ariz. S.D.H.	1/16/58	1/22/58	1	3 hr.	Cont.	59	72	A-20 A-12	
Pima Tucson	Carbon Monoxide	Ariz. S.D.H.	1/15/59	1/21/59	1	60 min.	5/ day	24	16	A-12 A-21	
	Nitric Oxide	Ariz. S.D.H.	1/15/59	1/21/59	1	30 min.	5/ day	31	49	A-12 A-21	
	Nitrogen Dioxide	Ariz. S.D.H.	1/15/59	1/21/59	1	30 min.	5/ day	31	49	A-12 A-21	
	Oxidant	Ariz. S.D.H.	1/15/59	1/21/59	1	10 min.	9/ day	36	59	A-12 A-21	
	Sulfur Dioxide	Ariz. S.D.H.	1/15/59	1/21/59	1	60 min.	5/ day	36	78	A-12 A-21	
	Suspended Particulate Total Weight	Ariz. S.D.H.	1/15/59	1/21/59	1	24 hr.	1/ day	67	-	A-21 A-12	
	Suspended Particulate Soiling	Ariz. S.D.H.	1/15/59	1/21/59	1	3 hr.	Cont.	59	72	A-21 A-12	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: ARKANSAS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Montgomery											
Quachita Nat'l. Forest (N.U.)	Suspended Particulate	U.S. Forest Service & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-2		8/13/58	12/20/58	1	24 hr.	1/ 2 wk.	63	82	O-1	
	N.A.S.N.-2A		1/12/59	6/24/59	1	24 hr.	1/ 2 wk.	69		N-3	
Pulaski											
Little Rock	Suspended Particulate	Ark. S.B.H. & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-8A		1/12/57	12/27/57	1	24 hr.	1/ 2 wk.	63	82	A-13	
	N.A.S.N.-2A		1/13/59	6/ 9/59	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-12		1/ 6/58	12/28/58	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Alameda											
Berkeley	Carbon Monoxide	Calif. S.D.P.H.	8/ /57	6/30/59	1	Cont.	Cont.	-	18	C-3	P
	Dustfall Total Weight Volatiles	Calif. S.D.P.H.	3/17/58	6/30/59	1	1 mo.	Cont.	2	-	C-3	
	Nitric Oxide	Calif. S.D.P.H.	3/ /56	6/30/59	1	Cont.	Cont.	-	49	C-3	P
	Nitrogen Dioxide	Calif. S.D.P.H.	3/ /56	6/30/59	1	Cont.	Cont.	-	49	C-3	P
	Oxidants	Calif. S.D.P.H.	1/ 1/56	6/30/59	1	10 min.	1-5/ day	31	59	C-3	
			1/ 1/56	6/30/59	1	Cont.	Cont.	39	60		P
	Oxidants	Berkeley City H.D.	1/ 1/56	6/30/59	2	10 min.	10/ wk.	31	-	B-6	Q
	Sulfur Dioxide	Calif. S.D.P.H.	8/ /57	8/ /58	1	Cont.	Cont.	56	79	C-3	P
	Suspended Particulate N.A.S.N.-10A	Calif. S.D.P.H., U.S.D.H.E.W., P.H.S.	1/15/59	6/24/59	1	24 hr.	1/ 2 wk.	69 63	82	C-3 N-3	
	Suspended Particulate Soiling	Univ. of Calif.	1/ 1/56	6/30/59	1	2 hr.	Cont.	59	72	U-8 T-15	
	Suspended Particulate Soiling	Calif. S.D.P.H.	4/ 1/57	6/30/59	1	2 hr.	Cont.	59	72	C-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Alameda											
Berkeley	Suspended Particulate	Calif. S.D.P.H.									
	Ni, Zn, Pb, Cr, V, As		1/11/57	12/18/58	1	5-7 hr. 20-30 hr	2/ mo.	66 69	11	C-3	
	Suspended Particulate	Calif. S.D.P.H.									
	Total Weight		1/ 1/56	6/30/59	1	24 hr.	2/ wk.	63	-	C-3	
	Benzene Sol.							69			
	Nitrates								48		
	Sulfates								76		
	pH		9/ 5/56	11/22/57				-	67		
Alameda											
Oakland	Suspended Particulate	Alameda C.H.D. & U.S.D.H.E.W.,						69		N-3	
	N.A.S.N.-10	P.H.S.	1/12/58	12/ 4/58	1	24 hr.	1/ 2 wk.	63	82	A-4	
Alameda											
San Leandro	Oxidant	Bay Area A.P.C.D.	10/ 1/58	6/30/59	1	10 min.	Var.	57	59	B-3	
			12/ 1/58	6/30/59	1	Cont.	Cont.	39	60		
	Suspended Particulate	Calif. S.D.P.H. U.S.D.H.E.W.,						69		N-3	
	N.A.S.N.-7	P.H.S.	1/ 3/56	10/24/56	1	24 hr.	3-5/ mo.	63	82	C-3	
	Suspended Particulate	Bay Area A.P.C.D.									
	Total Weight		12/ 4/58	6/30/59	1	24 hr.	1/ day	69	-	B-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Alameda San Leandro	Suspended Particulate Soiling	Bay Area A.P.C.D.	11/ /58	6/30/59	1	---	Cont.	59	72	B-3	
Contra Costa Richmond	Suspended Particulate N.A.S.N.-10	Contra Costa C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 5/58	12/17/58	1	24 hr.	1/ 2 wk.	63 69	82	C-27 N-3	
Contra Costa Richmond & Martinez	Oxidant	Contra Costa C.H.D.	1/ 1/56	6/30/59	2	10 min.	daily	31	59	C-27	
	Suspended Particulate Total Weight	Contra Costa C.H.D.	1/ /59	6/30/59	1	24 hr.	1/ 2 wk.	63 69	--	C-27	
Contra Costa Nichols	Fluorides	Bay Area A.P.C.D.	2/26/59	3/26/59	2	3 weeks	1/ 3 wk.	31	35	B-3	
Del Norte Crescent City	Oxidant	Del Norte County Historical Society & Calif. S.D.P.H.	9/21/56	2/ 8/57	1	10 min.	27/ mo.	31	59	D-9 C-3 H-12	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Del Norte											
Crescent City	Suspended Particulate	Del Norte County Historical Society & Calif. S.D.P.H.	7/24/56	2/28/59	1	7-16 hr.	4-9/ mo.				
	Total Weight							63		D-9	
	Benzene Sol.							69		C-3	
	Chlorides								19		
	Nitrates								48		
	Sulfates								76		
	pH							-	67		
Fresno											
Fresno	Oxidant	Fresno C.H.D.	11/20/57	6/30/59	2	10 min.	1/ day	31	59	F-9	
	Suspended Particulate	Fresno C.H.D. & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-10		1/26/58	12/28/58	1	24 hr.	1/ 2 wk.	69		N-3	
								63	82	F-9	
	Suspended Particulate	Fresno C.H.D.									
	Total Weight		2/28/59	6/30/59	1	24 hr.	1/ 2 wk.	63		F-9	
	Benzene Sol.							69			
	Nitrates								48		
	Sulfates								76		
	Suspended Particulate	Fresno C.H.D.									
	Soiling		11/13/57	6/30/59	1	2 hr.	Cont.	59	72	F-9	
Humboldt											
Trinidad Head (N.U.)	Oxidant	U.S.C.G. & Calif. S.D.P.H.	3/13/57	2/21/58	1	10 min.	1/ day	31	59	C-3	
			8/22/58	6/30/59	1	10 min.	1/ day			U-12	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Humboldt											
Trinidad Head (N.U.)	Suspended Particulate	U.S.C.G. & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-2		3/23/58	12/28/58	1	24 hr.	1/ 2 wk.	63	82	U-12	
	N.A.S.N.-2A		1/12/59	6/28/59	1	24 hr.	1/ 2 wk.	69		N-3	
	Suspended Particulate	U.S.C.G. & Calif. S.D.P.H.									
	Total Weight		3/13/57	1/30/58	1	12 hr.	8-10/ mo.	63		U-12	
	Benzene Sol.							69		C-3	
	Nitrates								48		
	Sulfates								76		
	pH								67		
Kern											
Bakersfield	Oxidant	Kern C.H.D.	11/25/57	6/30/59	1	10 min.	1/ day	31	59	K-7	
	Suspended Particulate	Kern C.H.D.									
	Soiling		11/25/57	6/30/59	1	2 hr.	Cont.	59	72	K-7	
Los Angeles											
Arcadia	Oxidant	Los Angeles State & County Arboretum	4/ 1/59	6/30/59	1	10 mih.	9/ day	31	59	L-9	
	Plant Damage	Los Angeles State & County Arboretum	1/ 1/56	6/30/59	1	24 hr.	Cont.	77	70	L-9	
	Plant Damage	Los Angeles C.A.P.C.D.	3/ /56	6/ /59	1	24 hr.	Cont.	77	70	L-8	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Artesia	Carbon Monoxide	Los Angeles C.A.P.C.D.	12/ /56	5/ /57	1	Cont.	Cont.	44	18	L-8	
Los Angeles Avalon	Oxidant	Calif. S.D.P.H.	3/12/59	6/30/59	1	10 min.	1-3/ day	31	59	C-3	
Los Angeles Azusa	Aldehydes	Los Angeles C.A.P.C.D.	6/ /57	11/ /58	1	1 hour	Var.	36	7	L-8	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	2	Cont.	Cont.	44	18	L-8	C
	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	6/30/59	1	30 days	12/ year	5	24	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	6/ /57	11/ /58	1	1 hr.	Var.	54	39	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	10/ /56	6/ /59	2	Cont.	Cont.	47	54	L-8	C F
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	9/ /56	6/ /59	2	Cont.	Cont.	47	54	L-8	C F

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Azusa	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	2	Cont.	Cont.	23	57	L-8	C
	Ozone	Los Angeles C.A.P.C.D.	8/ /57 8/ /56	6/ /59 6/ /59	1 2	Cont. Var.	Cont. -	39 50	- 64	L-8	D C
	Precursor	Los Angeles C.A.P.C.D.	2/ /57	6/ /59	1	10 min.	1/ hour	23 75	71	L-8	
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	9/ /57	6/ /59	1	55 min.	Cont.	26	73	L-8	G
Los Angeles Burbank	Aldehydes	Los Angeles C.A.P.C.D.	5/ /57	11/ /58	1	1 hr.	Var.	36	7	L-8	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	Cont.	Cont.	44	18	L-8	
	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	30 days	12/ yr.	5	24	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	6/ /57	11/ /58	1	1 hr.	Var.	54	39	L-8	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Burbank	Nitric Oxide	Los Angeles C.A.P.C.D.	7/ /56	6/ /59	1	Cont.	Cont.	47	54	L-8	F
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	7/ /56	6/ /59	1	Cont.	Cont.	47	54	L-8	F
	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	Cont.	Cont.	23	57	L-8	
	Ozone	Los Angeles	6/ /56	6/ /59	1	Var.	--	50	64		D
		C.A.P.C.D.	1/ /58	6/ /59	1	Cont.	Cont.	39	--	L-8	
	Sulfur Dioxide	Los Angeles C.A.P.C.D.	1/ /57	6/ /59	1	Cont.	Cont.	56	79	L-8	
	Suspended Particulate	Los Angeles C.A.P.C.D.						69		N-3	
	N.A.S.N.-8A	U.S.D.H.E.W., P.H.S.	1/ 2/57	12/21/57	1	24 hr.	1/ 2 wk.	63	82	L-8	
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	55 min.	Cont.	26	73	L-8	G
Los Angeles Compton	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	8/ /56	1	24 hr.	Cont.	77	70	L-8	
Los Angeles Dominguez	Aldehydes	Los Angeles C.A.P.C.D.	9/ /58	11/ /58	1	1 hour	Var.	36	7	L-8	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	4/ /58	6/ /59	1	Cont.	Cont.	44	18	L-8	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Dominguez	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	7/ /56	1	30 days	12/ yr.	5	24	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	4/ /58	11/ /58	1	1 hour	Var.	54	39	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	4/ /58	6/ /59	1	Cont.	Cont.	47	54	L-8	F
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	4/ /58	6/ /59	1	Cont.	Cont.	47	54	L-8	F
	Oxidant	Los Angeles C.A.P.C.D.	4/ /58	6/ /59	1	Cont.	Cont.	23	57	L-8	
	Ozone	Los Angeles C.A.P.C.D.	6/ /58 7/ /58	6/ /59 6/ /59	1 1	Cont. Var.	Cont. ---	39 50	-- 64	L-8	 D
	Sulfur Dioxide	Los Angeles C.A.P.C.D.	4/ /58	6/ /59	1	Cont.	Cont.	56	79	L-8	
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	4/ /58	6/ /59	1	55 min.	Cont.	26	73	L-8	G

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Downey	Carbon Monoxide	Los Angeles C.A.P.C.D.	3/ /59	6/ /59	1	Cont.	Cont.	44	18	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	3/ /59	6/ /59	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	3/ /59	6/ /59	1	Cont.	Cont.	47	54	L-8	F
	Oxidant	Los Angeles C.A.P.C.D.	4/ /59	6/ /59	1	Cont.	Cont.	23	57	L-8	F
	Ozone	Los Angeles C.A.P.C.D.	4/ /59	6/ /59	1	Cont.	Cont.	39	--	L-8	
	Precursor	Los Angeles C.A.P.C.D.	4/ /59	6/ /59	1	10 min.	1/ hr.	23 75	71	L-8	
	Sulfur Dioxice	Los Angeles C.A.P.C.D.	1/ /59	6/ /59	1	Cont.	Cont.	56	79	L-8	
Los Angeles El Monte	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /57	1	Cont.	Cont.	44	18	L-8	
	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acicity	Los Angeles C.A.P.C.D.	9/ /56	6/ /57	1	30 days	12/ year	5	24	L-8	

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STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles El Monte	Eye Irritation Panel	Los Angeles C.A.P.C.D.	5/ /57	1/ /58	1	Cont.	8 hr/ day	76	29	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	7/ /56	6/ /57	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	6/ /56	6/ /57	1	Cont.	Cont.	47	54	L-8	
	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	6/ /57	1	Cont.	Cont.	23	57	L-8	
	Ozone	Los Angeles C.A.P.C.D.	6/ /56	4/ /57	1	Var.	-	50	64	L-8	
Los Angeles El Segundo	Aldehydes	Los Angeles C.A.P.C.D.	6/ /57	11/ /57	1	1 hr.	Var.	36	7	L-8	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	6/ /57	6/ /58	1	Cont.	Cont.	44	18	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	7/ /57	11/ /57	1	1 hr.	Var.	54	39	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	5/ /57	6/ /58	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	5/ /57	6/ /58	1	Cont.	Cont.	47	54	L-8	
	Oxidant	Los Angeles C.A.P.C.D.	5/ /57	6/ /58	1	Cont.	Cont.	39	-	L-8	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CALIFORNIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles El Segundo	Ozone	Los Angeles C.A.P.C.D.	6/ /57	11/ /57	1	Var.	-	50	64	L-8	
	Precursor	Los Angeles C.A.P.C.D.	8/ /57	6/ /58	1	10 min.	1/ hr.	23 75	71	L-8	
	Sulfur Dioxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	2	Cont.	Cont.	56	79	L-8	C
	Suspended Particulate Ether Sol.	Los Angeles C.A.P.C.D.	1/ /57	11/ /57	1	1 hr.	-	68 63	28	L-8	D
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	4/ /58	6/ /58	1	55 min.	Cont.	26	73	L-8	G
Los Angeles Gardena	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	24 hr.	Cont.	77	70	L-8	
Los Angeles Glendale	Suspended Particulate	Los Angeles C.A.P.C.D.						69			
	N.A.S.N.-10A	U.S.D.H.E.W., P.H.S.	1/14/59	6/21/59	1	24 hr.	1/ 2 wk.	63	82	L-8 N-3	
Los Angeles Henninger Flats, Angelus Nat'l. Forest	Plant Damage	Los Angeles C.A.P.C.D.	10/ /56	11/ /57	1	24 hr.	Cont.	77	70	L-8	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Lennox	Aldehydes	Los Angeles C.A.P.C.D.	11/ /57	2/ /58	1	1 hr.	Var.	36	7	L-8	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	4/ /58	1	Cont.	Cont.	44	18	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	11/ /57	2/ /58	1	1 hr.	Var.	54	39	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	7/ /56	4/ /58	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	7/ /56	4/ /58	1	Cont.	Cont.	47	54	L-8	
	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	4/ /58	1	Cont.	Cont.	23	57	L-8	
	Ozone	Los Angeles C.A.P.C.D.	11/ /57	2/ /58	1	Var.	---	50	64	L-8	
	Sulfur Dioxide	Los Angeles C.A.P.C.D.	7/ /57	4/ /58	1	Cont.	Cont.	56	79	L-8	
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	2/ /58	4/ /58	1	55 min.	Cont.	26	73	L-8	G
Los Angeles Long Beach	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	6/ /56	1	24 hr.	Cont.	77	70	L-8	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Long Beach	Sulfur Dioxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	Cont.	Cont.	56	79	L-8	
	Suspended Particulate N.A.S.N.-10	Long Beach C.H.D. U.S.D.H.E.W., P.H.S.	1/13/58	12/28/58	1	24 hr.	1/ 2 wk.	63 69	82	L-6 N-3	
Los Angeles Los Angeles	Aldehydes	Los Angeles C.A.P.C.D.	1/ /56	11/ /58	4	1 hr.	Var.	36	7	L-8	B
	Aldehydes	Univ. of Calif.	5/ /56	12/ /56	3	30-90min.	1/ day	36	7	U-9	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ 1/56	6/ /59	5	Cont.	Cont.	44	18	H-11 L-8	B C
	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	2	30 days	12/ yr.	5	24	L-8	B C
	Eye Irritation Panel	Los Angeles C.A.P.C.D.	5/ /57	6/ /59	1	Cont.	8 hr/ day	76	29	L-8	
	Eye Irritation Panel	Univ. of Calif.	5/ /56	12/ /56	1	-	1/ day	76	29	U-9	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Los Angeles	Hydrocarbons	Los Angeles C.A.P.C.D.	1/ /56	11/ /58	4	1 hr.	Var.	54	38 39	L-8	B C
	Nitric Oxide	Los Angeles C.A.P.C.D.	7/ /56 1/ /56	6/ /59 11/ /56	6 1	Cont. Inst.	Cont. 6/ day	47 26	54 51	L-8 R-11	B C F
	Nitric Oxide	Univ. of Calif.	3/28/59	5/13/59	1	Cont.	Cont.	47	54	U-9	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	7/ /56 1/ /56	6/ /59 11/ /56	1 1	Cont. Inst.	Cont. 6/ day	47 26	54 51	L-8 R-11 H-11	B C F
	Nitrogen Dioxide	Univ. of Calif.	3/28/59	5/13/59	1	Cont.	Cont.	47	54	U-9	
	Nitrogen Oxides	Univ. of Calif.	5/ /56	12/ /56	3	-	-	31	49	U-9	
	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	6	Cont.	Cont.	23	57	L-8 H-11	B C
	Oxidant	Univ. of Calif.	5/ /56 4/ 1/58	12/ /56 6/30/59	3 1	- Cont.	- Cont.	31 23	60 57	U-9	
	Ozone	Los Angeles C.A.P.C.D.	6/ /58 1/ /56	6/ /59 6/ /59	3 6	Cont. Var.	Cont. -	39 50	- 64	L-8 H-9	B C
	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	4	24 hr.	Cont.	77	70	L-8	C
	Precursor	Los Angeles C.A.P.C.D.	10/ /58	6/ /59	2	10 min.	1/hour	23 75	71	L-8	C

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Los Angeles	Sulfur Dioxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	4	Cont.	Cont.	56	79	L-8 H-11	B C
	Suspended Particulate N.A.S.N.-3A	Los Angeles C.A.P.C.D. & U.S.D.H.E.W., P.H.S.	1/ 5/57	12/27/57	1	24 hr.	1/ 2 wk.	63	82	L-8	A
	N.A.S.N.-5		1/ 7/58	12/ 8/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 5/59	6/22/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	3	55 min.	Cont.	26	73	H-11 L-8	G C B
	Suspended Particulate Ether Sol.	Los Angeles C.A.P.C.D.	1/ /56	1/ /58	2	1 hr.	-	68 63	28	L-8	D C B
	Suspended Particulate Pb	Calif. S.D.P.H.	1/11/57	6/30/59	1	24 hr.	2/ mo.	69	-	C-3	
	Suspended Particulate Particle Count Particle Size	Univ. of Calif.	5/ /56	12/ /56	3	30-90min.	1/ day	73	66	U-9	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles North Hollywood	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	7/ /56	1	30 days	12/ yr.	5	24	L-8	
	Eye Irritation Panel	Los Angeles C.A.P.C.D.	5/ /57	1/ /58	1	Cont.	8 hr/day	76	29	L-8	
Los Angeles Pasadena	Aldehydes	Los Angeles C.A.P.C.D.	7/ /56	11/ /58	2	1 hr.	Var.	36	7	L-8	C
	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	2	Cont.	Cont.	44	18	L-8	C
	Eye Irritation Panel	Los Angeles C.A.P.C.D.	5/ /57	1/ /58	1	Cont.	8 hr/day	76	29	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	1/ /56	11/ /58	3	1 hr.	Var.	54	39		C
	Nitric Oxide	Los Angeles C.A.P.C.D.	7/ /56 1/ /56	6/ /59 8/ /57	2 2	Cont. Inst.	Cont. 6/ day	47 26	54 51	L-8	C F
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	7/ /56 1/ /56	6/ /59 3/ /57	2 2	Cont. Inst.	Cont. 6/ day	47 26	54 51	L-8	C F

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Pasadena	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	3	Cont.	Cont.	23	57	L-8	C
	Oxidant	Cal. Tech.	1/ /56	6/ /59	1	10 min.	8/ day	36	59	C-2	R
	Ozone	Los Angeles C.A.P.C.D.	1/ /56 6/ /58	6/ /59 6/ /59	2 2	Var. Cont.	- Cont.	50 39	64 -	L-8	C
	Ozone	Cal. Tech.	1/ /58	6/ /59	1	7 days	52/ yr.	50	64	C-2 H-9	
	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	24 hr.	Cont.	77	70	L-8	
	Precursor	Los Angeles C.A.P.C.D.	9/ /58	6/ /59	1	10 min.	1/ hour	23 75	71	L-8	
	Sulfur Dioxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	2	Cont.	Cont.	56	79	L-8	C
	Suspended Particulate N.A.S.N.-7	Los Angeles C.A.P.C.D., U.S.D.H.E.W.,	1/ 6/56	11/28/56	1	24 hr.	1-9/ mo.	63	82	L-8	
	N.A.S.N.-9A	P.H.S.	1/13/57	12/21/57	1	24 hr.	1/ 2 wk.	69		N-3	
	Suspended Particulate Ether Sol.	Los Angeles C.A.P.C.D.	1/ /57	12/ /57	1	1 hr.	-	63 68	28	L-8	D
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	1/ 5/56	6/ /59	2	55 min.	Cont.	26	73	L-8	C G

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Pico-Rivera	Aldehydes	Los Angeles C.A.P.C.D.	12/ /56	2/ /58	1	1 hr.	Var.	36	7	L-8	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	3/ /59	1	Cont.	Cont.	44	18	L-8	
	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	7/ /57	12/ /58	1	30 days	12/ yr.	5	24	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	5/ /57	2/ /58	1	1 hr.	Var.	54	39	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	9/ /56	6/ /58	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	9/ /56	6/ /58	1	Cont.	Cont.	47	54	L-8	
	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	7/ /58	1	Cont.	Cont.	23	57	L-8	
	Ozone	Los Angeles C.A.P.C.D.	6/ /56 7/ /58	6/ /58 7/ /58	1 1	Var. Cont.	- Cont.	50 39	64 -	L-8	
	Sulfur Dioxide	Los Angeles C.A.P.C.D.	4/ /58	7/ /58	1	Cont.	Cont.	56	79	L-8	

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Los Angeles Pico-Rivera	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	2/ /58	7/ /58	1	55 min.	Cont.	26	73	L-8	G
Los Angeles Pomona	Carbon Monoxide	Los Angeles C.A.P.C.D.	2/ /59	2/ /59	1	Cont.	Cont.	44	18	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	1/ /59	2/ /59	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	1/ /59	2/ /59	1	Cont.	Cont.	47	54	L-8	
	Oxidant	Los Angeles C.A.P.C.D.	1/ /59	2/ /59	1	Cont.	Cont.	23	57	L-8	
	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	1/ /56	1	24 hr.	Cont.	77	70	L-8	
Los Angeles Reseda	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	9/ /56	1	Cont.	Cont.	44	18	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	8/ /56	6/ /57	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	8/ /56	6/ /57	1	Cont.	Cont.	47	54	L-6	
	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	2	Cont.	Cont.	23	57	L-8	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Reseda	Ozone	Los Angeles C.A.P.C.D.	8/ /56	8/ /56	1	Var.	---	50	64	L-8	
Los Angeles San Clemente Island	Oxidant	Los Angeles C.A.P.C.D., Calif. S.D.P.H. & U.S.D.H.E.W., P.H.S.	9/ /56	1/ /57	1	Cont.	Cont.	23	57	L-8 C-3 C-25 H-12 H-13	
Los Angeles San Fernando	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	24 hr.	Cont.	77	70	L-8	
Los Angeles South Gate	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	30 days	12/ year	5	24	L-8	
Los Angeles Sun Valley	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	6/ /56	2	30 days	12/ year	5	24	L-8	

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Los Angeles Sylmar	Nitric Oxide	Los Angeles C.A.P.C.D.	7/ /56	6/ /57	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	7/ /56	6/ /57	1	Cont.	Cont.	47	54	L-8	
	Oxidant	Los Angeles C.A.P.C.D.	8/ /56	9/ /56	1	Cont.	Cont.	23	57	L-8	
Los Angeles Temple City	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	6/ /56	1	30 days	12/ yr.	5	24	L-8	
Los Angeles Torrance	Aldehydes	Los Angeles C.A.P.C.D.	8/ /56	11/ /57	1	1 hr.	Var.	36	7	L-8	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	4/ /58	1	Cont.	Cont.	44	18	L-8	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Los Angeles Torrance	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	8/ /56	4/ /58	1	30 days	12/ yr.	5	24	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	7/ /57	11/ /57	1	1 hr.	Var.	54	39	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	6/ /56	4/ /58	1	Cont.	Cont.	47	54	L-8	
	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	6/ /56	4/ /58	1	Cont.	Cont.	47	54	L-8	
	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	4/ /58	1	Cont.	Cont.	23	57	L-8	
	Ozone	Los Angeles C.A.P.C.D.	8/ /56	11/ /57	1	Var.	-	50	64	L-8	
	Sulfur Dioxide	Los Angeles C.A.P.C.D.	1/ /56	4/ /58	1	Cont.	Cont.	56	79	L-8	
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	2/ /58	4/ /58	1	55 min.	Cont.	26	73	L-8	G

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Los Angeles Van Nuys	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	7/ /56	1	30 days	12/ year	5	24	L-8	
Los Angeles Vernon	Aldehydes	Los Angeles C.A.P.C.D.	1/ /56	11/ /57	1	1 hr.	Var.	36	7	L-8	
	Carbon Monoxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	Cont.	Cont.	44	18	L-8	
	Dustfall Total Weight Insolubles Solubles Ash Combustibles Chlorides Acidity	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	30 days	12/ year	5	24	L-8	
	Eye Irritation Panel	Los Angeles C.A.P.C.D.	5/ /57	6/ /59	1	Cont.	Cont.	76	29	L-8	
	Hydrocarbons	Los Angeles C.A.P.C.D.	7/ /56	11/ /58	1	1 hr.	Var.	54	39	L-8	
	Nitric Oxide	Los Angeles C.A.P.C.D.	7/ /56 6/ /56	6/ /59 6/ /57	1 1	Cont. Inst.	Cont. 6/ day	47 26	54 51	L-8 L-8	E

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Los Angeles Vernon	Nitrogen Dioxide	Los Angeles C.A.P.C.D.	7/ /56	6/ /57	1	Inst.	6/ day	26	51	L-8	E
			6/ /56	6/ /57	1	Inst.	6/ day				
	Oxidant	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	Cont.	Cont.	23	57	L-8	
	Ozone	Los Angeles C.A.P.C.D.	6/ /58	6/ /59	1	Cont.	Cont.	39	--	L-8	D
			1/ /56	6/ /59	1	Var.	---	50	64		
	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	24 hr.	Cont.	77	70	L-8	
	Precursor	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	10 min.	1/ hr.	23 75	71	L-8	
	Sulfur Dioxide	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	Cont.	Cont.	56	79	L-8	
	Suspended Particulate Ether Sol.	Los Angeles C.A.P.C.D.	9/ /56	9/ /56	1	1 hr.	---	68 63	28	L-8	
	Suspended Particulate Soiling	Los Angeles C.A.P.C.D.	9/ /57	6/ /59	1	55 min.	Cont.	26	73	L-8	G
Los Angeles Walnut	Oxidant	Los Angeles C.A.P.C.D.	10/ /56	6/ /59	1	Cont.	Cont.	23	57	L-8	

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Los Angeles West Los Angeles	Oxidant	Los Angeles C.A.P.C.D.	5/ /58	12/ /58	1	Cont.	Cont.	23	57	L-8	
	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	2	24 hr.	Cont.	77	70	L-8	C
	Precursor	Los Angeles C.A.P.C.D.	6/ /58	12/ /58	1	10 min.	1/ hr.	23 75	71	L-8	
Los Angeles Whittier	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56 4/ /57	2/ /56 6/ /59	1 1	24 hr. 24 hr.	Cont. Cont.	77	70	L-8	
Los Angeles Woodland Hills	Plant Damage	Los Angeles C.A.P.C.D.	1/ /56	6/ /59	1	24 hr.	Cont.	77	70	L-8	
Merced Merced	Oxidant	Merced C.H.D.	6/26/57 10/23/58	6/30/58 6/30/59	1 1	10 min. 10 min.	1/ day 1/ day	31	59	C-3 M-14	
	Suspended Particulate Soiling	Merced C.H.D.	10/ 1/57	6/30/59	1	2 hr.	Cont.	59	72	C-3 M-14	
Monterey King City	Oxidant	Monterey C.H.D.	11/ 1/58	6/30/59	1	10 min.	1/ wk.	55	59	C-3 M-29	
Monterey Monterey	Oxidant	Monterey C.H.D.	11/ 1/58	6/30/59	1	10 min.	1/ day	55	59	M-29 C-3	

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Monterey											
Monterey	Suspended Particulate	Monterey C.H.D.									
	Soiling		11/ 1/58	6/30/59	1	2 hr.	Cont.	59	72	M-29 C-3	
Monterey											
Salinas	Oxidant	Monterey C.H.D.	11/ 1/58	6/30/59	1	10 min.	3/ day	55	59	M-29 C-3	
	Suspended Particulate	Monterey C.H.D.									
	Soiling		11/ 1/58	6/30/59	1	2 hr.	Cont.	59	72	M-29 C-3	
Napa											
Napa	Oxidant	Napa C.H.D.	11/18/57	6/30/59	1	10 min.	1/ day	55	59	C-3 N-1	
Orange											
Anaheim	Dustfall	Orange C.A.P.C.D.	1/ 1/56	12/31/56	5-6	30 days	12/ year	4	24	0-5	
	Insoluble		1/ 1/57	12/31/57	6-10						
	Soluble		1/ 1/58	12/31/58	10-15						
	Ash		1/ 1/59	6/30/59	13-16						
	Bicarbonates		2/ /58	3/ /58					13		
	Calcium		8/ /58	6/ /59					19		
	Chlorides								13		
	Magnesium								--		
	Potassium								--		
	Sodium								76		
	Sulfates								67		
	pH		2/ /58	4/ /58					--		
	Conductance		8/ /58	6/ /59							

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Riverside Mira Loma Air Force Base	Carbon Monoxide	Riverside C.A.P.C.D.	12/ /58	6/30/59	1	Cont.	Cont.	44	18	R-6 C-3	P
	Nitrogen Dioxide	Riverside C.A.P.C.D.	4/ 6/59	6/30/59	1	Cont.	Cont.	41	49	C-3 R-6	P
	Oxidant	Riverside C.A.P.C.D.	3/ 1/59	6/30/59	1	Cont.	Cont.	40	60	R-6 C-3	P
Riverside Riverside	Carbon Monoxide	Univ. of Calif.	11/ /57	6/30/59	1	Cont.	Cont.	44	18	U-10	
	Dustfall Insolubles Solubles Chlorides Acidity	Riverside C.A.P.C.D.	5/ /59	6/30/59	7	30 days	12/ yr.	5	24	R-6	S
	Nitric Oxide	Univ. of Calif.	7/ /57	6/30/59	1	Cont.	Cont.	47	49	U-10	
	Nitrogen Dioxide	Univ. of Calif.	7/ /57	6/30/59	1	Cont.	Cont.	47	49	U-10	
	Nitrogen Dioxide	Riverside C.A.P.C.D.	12/ /58	6/30/59	2	Cont.	Cont.	41	49	R-6	
	Oxidant	Univ. of Calif.	7/ /57	6/30/59	1	Cont.	Cont.	23	57	U-10	
	Oxidant	Riverside C.A.P.C.D.	8/ /57	6/30/59	4	Cont.	Cont.	40	60	R-6	I

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Riverside Riverside	Sulfur Dioxide	Univ. of Calif.	4/ /58	6/30/59	1	Cont.	Cont.	56	79	U-10	
	Suspended Particulate Soiling	Riverside C.A.P.C.D.	12/ /58	6/30/59	1	2 hr.	Cont.	59	72	R-6	
Sacramento Sacramento	Oxidant	Sacramento C.H.D.	8/26/57	6/30/59	1	10 min.	2-3/ day	31	59	S-1 C-3	
	Suspended Particulate N.A.S.N.-10	Sacramento C.H.D. & U.S.D.H.E.W., P.H.S.	1/13/58	12/25/58	1	24 hr.	1/ 2 wk.	63 69	82	S-1 N-3	
	Suspended Particulate Soiling	Sacramento C.H.D.	9/12/57	6/30/59	1	2 hr.	Cont.	59	72	C-3 S-1	
San Bernardino Ontario	Nitrogen Oxides	San Bernardino C.A.P.C.D.	6/ 5/59	6/30/59	1	Cont.	Cont.	39	49	S-10	
	Oxidant	San Bernardino C.A.P.C.D.	6/ 5/59	6/30/59	1	Cont.	Cont.	39	60	S-10	
	Sulfur Dioxide	San Bernardino C.A.P.C.D.	6/ 5/59	6/30/59	1	Cont.	Cont.	39	78	S-10	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
San Bernardino											
San Bernardino	Carbon Monoxide	San Bernardino C.A.P.C.D.	11/30/58	6/30/59	1	Cont.	Cont.	44	18	S-10	
	Dustfall Insoluble Soluble	San Bernardino C.A.P.C.D.	9/ 9/57	8/24/58	17	30 days	12/ year	5	24	S-10	
	Nitrogen Oxides	San Bernardino C.A.P.C.D.	11/30/58	6/30/59	1	Cont.	Cont.	39	49	S-10	
	Oxidant	San Bernardino C.A.P.C.D.	11/30/58	6/30/59	1	Cont.	Cont.	39	60	S-10	
	Sulfur Dioxide	San Bernardino C.A.P.C.D.	11/30/58	6/30/59	1	Cont.	Cont.	39	78	S-10	
	Suspended Particulate	San Bernardino C.A.P.C.D. &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	1/29/57	12/18/57	1	24 hr.	Cont.	63	82	S-10	
	N.A.S.N.-10A	P.H.S.	1/ 4/59	6/30/59	1	24 hr.	Cont.	69		N-3	
San Diego											
Carlsbad	Oxidant	San Diego C.A.P.C.D.	2/ /58	6/ /59	1	10 min.	1/ day	55	59	S-11	
San Diego											
El Cajon	Oxidant	San Diego C.A.P.C.D.	3/ /57	6/ /59	1	10 min.	1/ day	55	59	S-11	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
San Diego El Cajon	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	San Diego C.A.P.C.D.	1/23/57	6/25/59	1	21-32 hr	2-3/mo.	69 63	 48 76 67	 S-11 C-3	
San Diego Mt. Woodson	Oxidant	San Diego C.A.P.C.D.	11/ /58 5/ /59	12/ /58 6/ /59	2	10 min.	1/ day	55	59	S-11	
San Diego National City	Oxidant	San Diego C.A.P.C.D.	3/ /57	6/ /59	1	10 min.	1/ day	55	59	S-11	
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates Chlorides pH	San Diego C.A.P.C.D.	4/ 2/56 4/ 2/56 4/ 2/56	6/25/59 5/ 2/57 10/31/57	1	16-44 hr	2/ mo.	63 69	-- 48 76 19 67	S-11	
San Diego Oceanside	Oxidant	San Diego C.A.P.C.D.	10/ /58	6/ /59	1	Cont.	Cont.	39	60	S-11	
San Diego San Diego	Carbon Monoxide	San Diego C.A.P.C.D.	1/ /57	3/ /59	1	Cont.	Cont.	49	18	S-11	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
San Diego San Diego	Nitrogen Oxides	San Diego C.A.P.C.D.	5/ /56	6/ /59	1	Cont.	Cont.	47	49	S-11	I
	Oxidant	San Diego C.A.P.C.D.	1/ /56	6/ /59	1	Cont.	Cont.	39	60	S-11	J
			3/ /57	6/ /59	7	10 min.	1/ day	55	59		
			11/ /58	6/ /59	4	10 min.	1/ day				
	Sulfur Dioxide	San Diego C.A.P.C.D.	1/ /57	5/ /59	1	Cont.	Cont.	39	--	S-11	K
	Suspended Particulate	San Diego C.A.P.C.D., &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	1/ 6/57	12/21/57	1	24 hr.	1/ 2 wk.	63	82	S-11	
	N.A.S.N.-12	P.H.S.	1/ 4/58	12/27/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/11/59	6/22/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	San Diego C.A.P.C.D.	1/ /59	6/ /59	1	2 hr.	Cont.	59	72	S-11	
	Suspended Particulate	San Diego C.A.P.C.D.									
	Total Weight		2/ /56	6/ /59	3	24 hr.	1/ wk.	63		S-11	
	Benzene Sol.							69			
	Nitrates								48		
	Sulfates								76		
	Chlorides								19		
	Suspended Particulate Pb, Zn, Cr, As, V, Ni	San Diego C.A.P.C.D.	1/ /57	3/ /58	1	2-24 hr.	1/ 2 wk.	69	--	S-11	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
San Francisco											
San Francisco	Hydrogen Sulfide	Bay Area A.P.C.D.	5/26/58 6/ 4/58	5/27/58 6/ 4/58	1 rov'g at 16 sites	Var.	-	36	41	B-3	L
			9/16/58	9/26/58	1	1-2 hr.	Cont.	21	42		M
	Oxidant	Bay Area A.P.C.D.	11/ 1/58	6/30/59	1	10 min.	12/ day	51	59	B-3	
	Oxidant	U.S.C.G. & Calif. S.D.P.H.	12/12/56	10/16/58	1	10 min.	3-4/ wk.	31	59	U-13 C-3 H-12	N
	Suspended Particulate	San Francisco City H.D. &									
	N.A.S.N.-7	U.S.D.H.E.W.,	1/ 3/56	9/11/56	1	24 hr.	1-5/ mo.	63	82	N-3	A
	N.A.S.N.-8A	P.H.S.	1/10/57	12/29/57	1	24 hr.	1/ 2 wk.	69		S-13	
	N.A.S.N.-12		1/24/58	12/20/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/13/59	6/27/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	Bay Area A.P.C.D.	9/ /58	6/30/59	1	-	Cont.	59	72	T-15 B-3	
	Suspended Particulate Total Weight	Bay Area A.P.C.D.	12/ /58	6/30/59	1	24 hr.	1/ day	69	-	B-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
San Francisco											
San Francisco	Suspended Particulate	U.S.C.G. & Calif. S.D.P.H.	1/17/56	1/16/58	1	12 hr.	8-36/ mo.	63		U-13	N
	Total Weight							69		C-3	
	Benzene Sol.								19	H-13	
	Chlorides								48		
	Nitrates								76		
	Sulfates								67		
	pH										
San Joaquin											
Stockton	Carbon Monoxide	Calif. S.D.P.H.	3/19/58	12/10/58	1	Cont.	Cont.	-	18	C-3	P
	Nitric Oxide	Calif. S.D.P.H.	9/23/58	6/30/59	1	Cont.	Cont.	-	49	C-3	P
	Nitrogen Dioxide	Calif. S.D.P.H.	3/19/58	7/12/58	1	Cont.	Cont.	-	49	C-3	P
			9/23/58	6/30/59	1	Cont.	Cont.				
	Oxidant	Calif. S.D.P.H.	3/19/58	6/30/59	1	Cont.	Cont.	-	60	C-3	P
	Oxidant	San Joaquin Local Health District	8/27/57	6/30/59	1	10 min.	1/ day	31	59	S-14 C-3	
	Suspended Particulate N.A.S.N.-10	San Joaquin Local Health District & U.S.D.H.E.W., P.H.S.	1/12/58	12/28/58	1	24 hr.	1/ 2 wk.	63 69	82	S-14 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
San Joaquin Stockton	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates	San Joaquin Local Health District	1/14/59	6/30/59	1	24 hr.	1/ 2 wk.	63 69	 48 76	S-14 C-3	
	Suspended Particulate Soiling	San Joaquin Local Health District	2/ 3/58	6/30/59	1	2 hr.	Cont.	59	72	S-14 C-3	
San Luis Obispo Piedras Blancas Light Station	Oxidant	U.S.C.G. Calif. S.D.P.H.	2/12/57	11/29/57	1	10 min.	1 day	31	59	C-3 H-12	
	Suspended Particulate Total Weight Benzene Sol. Chlorides Nitrates Sulfates pH	U.S.C.G. Calif. S.D.P.H.	5/ 9/56	1/30/58	1	10-24 hr.	6-32/ mo.	63 69	 19 48 76 67	C-3 H-13	
Santa Barbara Santa Barbara	Oxidant	Santa Barbara City H.D.	4/22/59	6/30/59	1	10 min.	1-3/ day	31	59	S-16 C-3	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Santa Barbara											
Santa Barbara	Suspended Particulate Soiling	Santa Barbara City H.D.	6/ 1/59	6/30/59	1	2 hr.	Cont.	59	72	C-3 S-16	
Santa Clara	Hydrogen Sulfide	Bay Area A.P.C.D.	9/16/57	9/18/57	3	1/2 hr.	Var.	21	42	T-14 B-3	
Santa Clara											
Mt. Hamilton	Oxidant	Calif. S.D.P.H.	3/15/56	6/30/59	1	10 min.	10-19/mo.	31	59	C-3 H-12	
	Suspended Particulate Soiling	Calif. S.D.P.H.	6/ 1/59	6/30/59	1	2 hr.	Cont.	59	72	C-3	
	Suspended Particulate	Calif. S.D.P.H.									
	Total Weight		3/24/56	6/30/59	1	10-24 hr.	15-17/mo.	63		C-3	
	Benzene Sol.							69		H-13	
	Nitrates								48		
	Sulfates								76		
	Chlorides		3/24/56	4/20/59					19		
	pH		3/24/56	10/25/57					67		
	Suspended Particulate	Calif. S.D.P.H.									
	Ni, Zn, Pb, Cr, V, As		1/11/57	11/19/58	1	6-24 hr.	2/ mo.	69	--	C-3	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Santa Clara											
San Jose	Suspended Particulate	Santa Clara C.H.D. &									
	N.A.S.N.-7	U.S.D.H.E.W.,	1/ 3/56	10/22/56	1	24 hr.	4-5/ mo.	63	82	S-17	
	N.A.S.N.-10B	P.H.S.	1/ 3/57	12/19/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/10/59	6/ 5/59	1	24 hr.	1/ 2 wk.				
Santa Cruz											
	Dustfall	Santa Cruz C.H.D.									
	Total Weight		4/10/59	6/30/59	10 plus 1 rov'g @ 7 sites	1 mo.	1/ mo.	2		S-18 C-3	
	Combustibles								15		
	Calcium Carbonate										
	Suspended Particulate	Santa Cruz C.H.D.									
	Total Weight		4/14/59	6/30/59	1 rov'g @ 5 sites	6-25 hr.	-	63		S-18	
	Benzene Sol.							69		C-3	
	Calcium Carbonate								15		
	Magnesium Carbonate								46		
	Nitrates								48		
	Sulfates								76		
Santa Cruz											
Santa Cruz	Dustfall	Santa Cruz C.H.D.									
	Total Weight		4/10/59	6/30/59	2 plus 1 rov'g @ 3 sites	1 mo.	1/ mo.	2		S-18 C-3	
	Combustibles										

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Santa Cruz Santa Cruz	Oxidant	Santa Cruz C.H.D.	4/ 7/59	6/30/59	2	10 min.	Total of 200	31	59	S-18 C-3	
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates	Santa Cruz C.H.D.	4/ 7/59	6/30/59	1 rov'g @ 3 sites	24 hr.	Total of 32	63 69	 48 76	S-18 C-3	
Santa Cruz Watsonville	Dustfall Total Weight Combustibles	Santa Cruz C.H.D.	4/10/59	6/30/59	2	1 mo.	Total of 11	2	--	S-18 C-3	
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates	Santa Cruz C.H.D.	5/12/59	5/22/59	1 rov'g @ 3 sites	24 hr.	Total of 13	63 64	 48	S-18 C-3	
Shasta Redding	Oxidant	Shasta C.H.D.	12/19/58	6/30/59	1	10 min.	1-3/ day	31	59	S-22 C-3	
	Suspended Particulate Soiling	Shasta C.H.D.	11/ 1/58	6/30/59	1	2 hr.	Cont.	59	72	S-22 C-3	
Sonoma Santa Rosa	Oxidant	Sonoma C.H.D.	3/17/58	6/30/59	1-2	10 min.	--	31	59	S-26 C-3	

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Sonoma										S-26	
Sonoma	Oxidant	Sonoma C.H.D.	4/ 1/58	6/30/59	1	10 min.	1/ day	31	59	C-3	
Stanislaus										S-38	
Modesto	Oxidant	Stanislaus C.H.D.	5/ 1/58	6/30/59	1	10 min	1/ day	31	59	C-3	
	Suspended Particulate	Stanislaus C.H.D.									
	Soiling		5/ 1/58	10/31/58	1	2 hr.	Cont.	59	72	S-38	
			3/ 5/59	6/30/59	1	2 hr.	Cont.			C-3	
Tulare											
Visalia	Oxidant	Tulare C.H.D.	6/ 2/59	6/30/59	1	10 min.	1/ day	31	59	I-11	
										C-3	
Ventura											
Oxnard	Sulfur Dioxide	Calif. S.D.P.H.	1/13/59	6/30/59	1	Cont.	Cont.	56	79	C-3	P
Ventura											
San Nicolas	Oxidant	Calif. S.D.P.H., Los Angeles, C.A.P.C.D. and U.S.D.H.E.W., P.H.S.	9/ /56	1/ /57	1	Cont.	Cont.	-	60	C-3	
										C-25	O
										L-8	P
										H-12	
	Suspended Particulate	Calif. S.D.P.H., Los Angeles									
	Total Weight	C.A.P.C.D. and	5/10/56	10/ 1/58	1	10-14 hr.	6-15/ mo.	63		C-3	
	Benzene Sol.	U.S.D.H.E.W.,						69		C-25	O
	Nitrates	P.H.S.							48	L-8	
	Sulfates								76	H-13	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

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COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Ventura											
San Nicolas Island	Suspended Particulate	Calif. S.D.P.H. Los Angeles,								C-3 C-25	
	Chlorides	C.A.P.C.D.	5/10/56	5/16/57	1	10-14 Hr.	6-15/mo.	63	19	C-8	O
	pH	U.S.D.H.E.W., P.H.S.	5/10/56	10/31/57				69	67	H-13	
Yolo											
Woodland	Oxidant	Yolo C.H.D.	8/20/58	6/30/59	1	10 min.	1/ day	31	59	Y-2 C-3	
	Suspended Particulates	Yolo C.H.D.									
	Soiling		10/14/58	6/30/59	1	2 hr.	Cont.	59	72	Y-2 C-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: CALIFORNIA

A. During a two-year period beginning September 1, 1957, special samples were collected at one station for a cancer study under the auspices of the National Cancer Institute. Samples were collected using high-volume samplers with 8" x 10" glass fiber filters and one low-volume sampler, 12 cfm positive displacement pump, with 8" x 10" millipore filter.

The high-volume samples were collected at the rate of 3 per week per station with sampling periods of from 48 to 72 hours. Step-down voltage transformers were used to reduce the sampling rate to obtain the longer sampling periods. The low-volume samplers were operated continuously until the pressure drop across the filter exceeded 5" Hg., or at the end of 30 days, whichever occurred first.

The high-volume samples were analyzed for total weight, benzene solubles, and radioactivity. The benzene solubles were fractionated into water soluble, bases, acids, and neutrals. The neutral fraction was in turn separated into aromatic hydrocarbons, aliphatic hydrocarbons, and oxygenated components. The low-volume samples were weighed and the collected material mechanically removed for use in animal experiments. Data from this study are available from the Robert A. Taft Sanitary Engineering Center (Agency C-25 or N-3).

B. Los Angeles City includes sampling stations at 434 S. San Pedro Street, Pershing Square, (6th and Olive Streets) Highland Park, Athens, Florence, and in the Wilshire area.

C. All stations listed were not necessarily operated simultaneously as some stations began or ended operations during this period.

D. Operation not continuous for all months indicated.

E. Special test instrument operated during Feb. and March, 1959.

F. During the period Aug. to Sept., 1958, all instruments reading nitrogen dioxide and nitrogen dioxide plus nitric oxide were converted to read nitric oxide and nitrogen dioxide directly.

G. During the first three months of 1958 many of the Chaney Aerosol Recorders were replaced by a Chaney Aerosol Recorder modified to include a strip chart recorder for automatic transmission and reflectance readings. In many cases both instruments were in operation at the same time and in the same station for many months.

H. At one station instantaneous hourly readings were taken and the other station used a recorder for continuous readings.

I. Two successive locations in San Diego

J. City of San Diego - 7 stations; City of El Cajon - 1 station and National City - 1 station

K. Three successive locations in San Diego

L. All sites in Candlestick Cove Area

M. All sites in China Basin Area

N. S.E. Farallon Island, 30 miles west of mainland

O. San Nicolas Island, 80 miles southwest of mainland

P. 1. Oxidants determined by Kruger Model 71 or 74

2. Nitric Oxide and Nitrogen Dioxide by Kruger Model 74 or Borman Analyzer

3. Carbon Monoxide by Perkin-Elmer or N.S.A. non-dispersive infrared analyzer

4. Sulfur Dioxide by Kruger SO_2 analyzer or Thomas Autometer

Q. One station in industrial area at sea level, other station in residential hill area at 1000 ft. altitude

R. Sampling station now located at the L.A. County Arboretum

S. Stations also located at Corona, Beaumont, Elsinore, Norco and Mockingbird Canyon

T. Stations also located at Corona and Beaumont

STATE: COLORADO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Denver											
Denver	Suspended Particulate	Denver A. P. Inspection, and									
	N.A.S.N.-6	U.S.D.H.E.W.,	1/ 4/56	10/10/56	1	24 hr.	2-5/ mo.	63	82	D-10	
	N.A.S.N.-8A	P.H.S.	1/ 4/57	12/25/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/ 7/58	12/27/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 6/59	6/22/59	1	24 hr.	1/ 2 wk.				
Denver	Suspended Particulate	Denver A. P. Inspection, and									
	N.A.S.N.-6	U.S.D.H.E.W., P.H.S.	1/ 4/56	7/23/56	1	24 hr.	4-5/ mo.	63 69	82	D-10 N-3	
Montezuma											
Mesa Verde Nat'l. Park	Suspended Particulate	Nat'l. Park Service, and									
	N.A.S.N.-5	U.S.D.H.E.W.,	1/14/58	12/30/58	1	24 hr.	1/ 2 wk.	63	82	N-6	
	N.A.S.N.-2A	P.H.S	1/13/59	6/27/59	1	24 hr.	1/ 2 wk.	69		N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CONNECTICUT

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Fairfield Bridgeport	Suspended Particulate N.A.S.N.-9	Bridgeport A.P.C. and U.S.D.H.E.W., P.H.S.	2/27/58	12/ 5/58	1	24 hr.	1/ 2 wk.	63 69	82	B-11 N-3	
Fairfield Stamford	Suspended Particulate N.A.S.N.-10B	Stamford City H.D., U.S.D.H.E.W. P.H.S.	1/13/57	12/ 2/57	1	24 hr.	1/ 2 wk.	63 69	82	S-37 N-3	
Hartford Hartford	Suspended Particulate N.A.S.N.-8A	Conn. S.D.H., U.S.D.H.E.W., P.H.S.	1/ 4/57	12/23/57	1	24 hr.	1/ 2 wk.	63	82	C-26	
	N.A.S.N.-12		1/ 3/58	12/27/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/25/59	6/20/59	1	24 hr.	1/ 2 wk.				
	Dustfall Insolubles Solubles Volatiles Non-volatiles	Conn. S.D.H.	1/ 1/56	6/30/59	3-4	30 days	12/ year	13	27	C-26	
	Dustfall Total Weight Insolubles Solubles Volatiles Non-volatiles	Hartford H.D.	1/ 1/56	6/30/59	3	30 days	12/ year	14	-	H-4	A

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CONNECTICUT

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Hartford											
New Britain	Suspended Particulate	New Britain City H.D.									
	N.A.S.N.-1CA		1/14/59	6/28/59	1	24 hr.	1/ 2 wk.	63	82	N-15	
								69		N-3	
Litchfield											
Wigwam Reservoir (N.U.)	Suspended Particulate	Waterbury Health & Water Dept., &									
	N.A.S.N.-2	U.S.D.H.E.W.,	2/28/58	12/25/58	1	24 hr.	1/ 2 wk.	63	82	W-5	
	N.A.S.N.-2A	P.H.S.	1/12/59	6/26/59	1	24 hr.	1/ 2 wk.	69		N-3	
Middlesex											
Middletown	Dustfall	Conn. S.D.H.									
	Insolubles		7/ /58	6/ /59	4	30 days	12/ year	15	27	C-26	
	Solubles										
	Volatiles										
	Non-volatiles										
	Suspended Particulate	Conn. S.D.H.									
	Total Weight		1/ 7/59	1/14/59	2	24 hr.	1/ day	68	--	C-26	
New Haven											
New Haven	Dustfall	New Haven City									
	Insolubles	H.D.	1/ 1/56	6/30/59	6	1 mo.	12/ year	2	--	N-17	
	Suspended Particulate	New Haven City H.D.									
	N.A.S.N.-8		1/ 3/57	12/15/57	1	24 hr.	1/ 2 wk.	63	82	N-17	
	N.A.S.N.-12		1/ 3/58	12/ 8/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 6/59	6/24/59	1	24 hr.	1/ 2 wk.				B

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: CONNECTICUT

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
New Haven											
Waterbury	Suspended Particulate	Waterbury City H.D. &									
	N.A.S.N.-7	U.S.D.H.E.W.,	1/ 3/56	12/26/56	1	24 hr.	3-4/ mo.	63	82	N-3	
	N.A.S.N.-10	P.H.S	2/23/58	12/22/58	1	24 hr.	1/ 2 wk.	69		n-5	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: CONNECTICUT

A. Sample stations in residential, industrial, and business areas

B. Eleven samples were also collected at three other stations operated from March 10, 1959 to June 17, 1959. These samples were analyzed for total weight and radioactivity.

STATE: DELAWARE

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Kent											
Bombay Hook Nat'l. Wildlife Refuge (N.U.)	Suspended Particulate	Delaware S.B.H. & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-2		3/10/58	12/27/58	1	24 hr.	1/ 2 wk.	63	82	D-8	
	N.A.S.N.-2A		1/ 9/59	6/21/59	1	24 hr.	1/ 2 wk.	69		N-3	
New Castle											
Wilmington	Suspended Particulate	Wilmington City H.D. & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-8A		1/14/57	12/18/57	1	24 hr.	1/ 2 wk.	63	82	W-14	
	N.A.S.N.-12		1/ 7/58	12/30/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 7/59	5/ 7/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: DISTRICT OF COLUMBIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
District of Columbia											
Washington	Suspended Particulate	District of Columbia H.D. &									
	N.A.S.N.-11	U.S.D.H.E.W.,	1/18/56	6/19/56	1	24 hr.	2-5/ mo.	63	82	D-15	
	N.A.S.N.-11	P.H.S.	7/10/56	11/ 5/56	1	24 hr.	1-5/ mo.	69		N-3	
	N.A.S.N.-8A		1/ 4/57	12/29/57	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-12		1/13/58	12/20/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 9/59	6/30/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: FLORIDA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Dade											
Miami	Suspended Particulate	Dade C.H.D., & Miami City Bldg.								D-1	
	N.A.S.N.-9A	Dept., &	1/ 1/57	12/26/57	1	24 hr.	1/ 2 wk.	63	82	M-15	
	N.A.S.N.-10A	U.S.D.H.E.W., P.H.S.	1/13/59	6/23/59	1	24 hr.	1/ 2 wk.	69		N-3	
Duval											
Jacksonville	Suspended Particulate	Fla. S.B.H., & U.S.D.H.E.W.,								F-3	
	N.A.S.N.-10	P.H.S.	1/12/58	12/16/58	1	24 hr.	1/ 2 wk.	63	82	N-3	
								69			
Hillsborough											
Tampa	Suspended Particulate	Tampa Dept. of Public Works, &									
	N.A.S.N.-6	U.S.D.H.E.W.,	1/ 3/56	12/19/56	1	24 hr.	2-6/ mo.	63	82	T-2	
	N.A.S.N.-8A	P.H.S.	1/22/57	12/28/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/ 6/58	12/20/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/11/59	6/21/59	1	24 hr.	1/ 2 wk.				
Hillsborough											
Tampa Airport	Suspended Particulate	Tampa Dept. of Public Works, &									
	N.A.S.N.-6	U.S.D.H.E.W., P.H.S.	1/ 4/56	10/16/56	1	24 hr.	1/ 2 wk.	63	82	T-2	
								69		N-3	
Monroe											
Florida Keys (N.U.)	Suspended Particulate	Monroe C.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-8	P.H.S.	8/27/57	12/18/57	1	24 hr.	1/ 2 wk.	69	82	N-3	
	N.A.S.N.-5		1/ 4/58	12/31/58	1	24 hr.	1/ 2 wk.	63		M-27	
	N.A.S.N.-2A		1/13/59	6/19/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: FLORIDA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Orange											
Orlando	Suspended Particulate N.A.S.N.-10A	Orange C.H.D., & U.S.D.H.E.W., P.H.S.	1/14/59	6/ 1/59	1	24 hr.	1/ 2 wk.	63 69	82	O-6 N-3	
Polk											
	Fluorides	Fla. S.B.H.	6/ /58	6/30/59	115	30 days	12/ year	29	30	F-3	
	Fluorides	Univ. of Florida	6/ 1/57	9/ 1/57	6 rov'g.	Var.	Var.	31	32		
			3/ 1/59	6/30/59	38	30 days	12/ year	29	30 32	U-11 H-10	
	Sulfur Dioxide	Fla. S.B.H.	6/ /58	6/30/59	1 rov'g.	Cont.	Cont.	57	80	F-3	
	Sulfur Dioxide	Univ. of Florida	6/ 1/57	9/ 1/57	6 rov'g.	Var.	Var.	31	78		
			3/ 1/59	6/30/59	38	30 days	12/ year	43	76 75	U-11 H-10	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: GEORGIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Bibb											
Macon	Suspended Particulate N.A.S.N.-10	Macon-Bibb C.H.D. U.S.D.H.E.W., P.H.S.	1/10/58	12/25/58	1	24 hr.	1/ 2 wk.	63 69	82	M-1 N-3	
Chatham											
Oatland Island (N.U.)	Suspended Particulate N.A.S.N.-8	C.D.C.L., & U.S.D.H.E.W., P.H.S.	5/14/57	12/24/57	1	24 hr.	1/ 2 wk.	63	82	N-3	
	N.A.S.N.-2		1/15/58	12/23/58	1	24 hr.	1/ 2 wk.	69			
	N.A.S.N.-2A		1/ 2/59	6/ 8/59	1	24 hr.	1/ 2 wk.				
Chatham											
Savannah	Suspended Particulate N.A.S.N.-10A	Chatham C.H.D.& U.S.D.H.E.W., P.H.S.	1/10/59	6/30/59	1	24 hr.	1/ 2 wk.	63 69	82	C-13 N-3	
Fulton											
Atlanta	Suspended Particulate N.A.S.N.-7	Atlanta-Fulton C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 5/56	12/11/56	1	24 hr.	1-4/ mo.	63	82	A-15	A
	N.A.S.N.-8A		1/ 7/57	12/30/57	1	24 hr.	1-4/ mo.	69		N-3	
	N.A.S.N.-5		1/27/58	12/23/58	1	24 hr.	1-4/ mo.				
	N.A.S.N.-2A		1/ 9/59	6/28/59	1	24 hr.	1-4/ mo.				
Muscogee											
Columbus	Suspended Particulate N.A.S.N.-9A	Columbus-Muscogee C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 2/57	12/27/57	1	24 hr.	1/ 2 wk.	63 69	82	C-31 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: GEORGIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Richmond Augusta	Suspended Particulate N.A.S.N.-10	Richmond C.H.D.	1/ 5/58	12/30/58	1	24 hr.	1/ 2 wk.	63 69	82	R-4 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: GEORGIA

A. During a two-year period beginning September 1, 1957, special samples were collected for a cancer study under the auspices of the National Cancer Institute. Samples were collected using high volume samplers with 8" x 10" glass fiber filters and one low-volume sampler, 12 cfm positive displacement pump, with an 8" x 10" millipore filter.

The high-volume samples were collected at the rate of 3 per week per station with sampling periods of from 48 to 72 hours. Step-down voltage transformers were used to reduce the sampling rate to obtain the longer sampling periods. The low-volume samplers were operated continuously until the pressure drop across the filter exceeded 5" Hg., or at the end of 30 days, whichever occurred first.

The high volume samples were analyzed for total weight, benzene solubles, and radioactivity. The benzene solubles were fractionated into water soluble, bases, acids, and neutrals. The neutral fraction was in turn separated into aromatic hydrocarbons, aliphatic hydrocarbons, and oxygenated components. The low-volume samples were weighed and the collected material mechanically removed for use in animal experiments. Data from this study are available from the Robert A. Taft Sanitary Engineering Center (Agency C-25 or N-3).

STATE: HAWAII

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Honolulu Honolulu	Aldehydes	Hawaii S.B.H.	9/ 9/56 1/27/57	9/19/56 2/ 9/57	5	165 min.	4/ day	36	6	H-8	A
	Carbon Monoxide	Hawaii S.B.H.	9/ 9/56 1/27/57	9/19/56 2/ 9/57	5	Var.	4/ day	24	17	H-8	A
			5/21/58	5/28/58	1	Var.	2/ day				B
	Hydrocarbons	Hawaii S.B.H.	9/ 9/56 1/27/57	9/17/56 2/ 9/57	5	60 min.	4/ day	54	40	H-8	A
	Nitrogen Oxides	Hawaii S.B.H.	9/ 9/56 1/27/57	9/19/56 1/27/57	5	5 min.	4/ day	32	49	H-8	A
			5/21/58	5/28/58	1	50 min.	4/ day	31	49		B
	Oxidant	Hawaii S.B.H.	9/ 9/56 1/27/57	9/19/56 2/ 9/57	5	10 min.	4/ day	31	59	H-8	A
			5/21/58	5/28/58	1	10 min.	9/ day	36	59		B
	Sulfur Dioxide	Hawaii S.B.H.	9/ 9/56 1/27/57	9/19/56 2/ 9/57	5	30 min.	4/ day	31	--	H-8	A
			5/21/58	5/28/58	1	10 min.	9/ day	36	78		B
	Suspended Particulate N.A.S.N.-6	Hawaii S.B.H., & U.S.D.H.E.W., P.H.S.	5/ 3/56	12/ 7/56	1	24 hr.	1-5/ mo.	63	82	H-8	
	N.A.S.N.-3A		5/ 4/56	12/ 7/56	1	24 hr.	1-4/ mo.	69		N-3	
	N.A.S.N.-12		1/ 4/57	12/18/57	1	24 hr.	1/ 2 wk.				
			1/14/58	12/15/58	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	Hawaii S.B.H.	5/21/58	5/28/58	1	3 hr.	Cont.	59	72	H-8	B

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: HAWAII

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Honolulu Honolulu	Suspended Particulate Total Weight Benzene Sol.	Hawaii S.B.H.	9/ 9/56 1/27/57	9/19/56 2/ 9/57	5	180 min.	4/ day	68	--	H-8	A
	Suspended Particulate Total Weight	Hawaii S.B.H.	5/21/58	5/28/58	1	24 hr.	1/ day	69	--	H-8	B
Oahu Barber's Point (N.U.)	Suspended Particulate N.A.S.N.-2 N.A.S.N.-2A	Hawaii S.B.H., & U.S.D.H.E.W., P.H.S.	10/15/58 1/ 5/59	12/31/58 6/27/59	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	H-8 N-3	
Oahu Waimanalo (N.U.)	Suspended Particulate N.A.S.N. -8 N.A.S.N. -2	Hawaii S.B.H., & U.S.D.H.E.W., P.H.S.	1/ 1/57 1/ 8/58	12/ 4/57 8/16/58	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	H-8 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: HAWAII

A. Stations located in Honolulu to give potentially higher concentration of contaminants in certain wind patterns.

B. Sample station on top of Theo. H. Davies Bldg. in downtown Honolulu.

STATE: IDAHO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Ada											
Boise	Suspended Particulate	Boise City C.H.D., &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	1/ 6/57	12/ 9/57	1	24 hr.	1/ 2 wk.	63	82	B-10	
	N.A.S.N.-12	P.H.S.	1/14/58	12/15/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/12/59	6/23/59	1	24 hr.	1/ 2 wk.				
Butte											
Craters of the Moon Nat'l. Monument (N.U.)	Suspended Particulate	Nat'l. Park Service, &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	1/ 1/57	12/ 4/57	1	24 hr.	1/ mo.	63	82	C-30	
	N.A.S.N.-5	P.H.S.	1/10/58	12/31/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/14/59	6/16/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: ILLINOIS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Cook											
Chicago	Dustfall	Chicago Dept. A.P.C., & Armour Research Foundation	1/ 1/56	6/30/59	26	30 days	12/ year	12	26	C-15 A-14	
	Total Weight										
	Chloroform Sol.										
	Insolubles										
	Solubles										
	Non-volatiles										
	Volatiles										
	Sulfur Dioxide	Chicago Dept. A.P.C.	4/10/59	6/30/59	26	1 hr.	-	37	81	C-15	
	Suspended Particulate	Chicago Dept. A.P.C., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-6		1/ 3/56	6/ 6/56	3	24 hr.	1-5/ mo.	63	82	C-15	
	N.A.S.N.-8A		1/26/57	5/30/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/25/58	12/30/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 8/59	6/27/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate	Chicago Dept. A.P.C.									
	Particle Count		4/10/59	6/30/59	26	1 hr.	300/ year	37	65	C-15	
	Particle Size										
Peoria											
Peoria	Suspended Particulate	Peoria City Div. of Inspections, U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-10		1/ 7/58	12/27/58	1	24 hr.	1/ 2 wk.	63 69	82	P-12 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: ILLINOIS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Saint Clair											
East St. Louis	Suspended Particulate	East St. Louis City H. D., &									
	N.A.S.N.-7	U.S.D.H.E.W.,	1/ 3/56	9/ 4/56	2	24 hr.	1-5/ mo.	63	82	E-3	
	N.A.S.N.-9	P.H.S.	1/ 5/58	12/25/58	1	24 hr.	1/ 2 wk.	69		N-3	
Sangamon											
Lake Springfield (N.U.)	Suspended Particulate	Illinois S.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-8A	P.H.S.	3/28/57	12/23/57	1	24 hr.	1/ 2 wk.	63	82	I-2	
	N.A.S.N.-2		1/28/58	12/ 8/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/17/59	6/27/59	1	24 hr.	1/ 2 wk.				
Sangamon											
Springfield	Suspended Particulate	Springfield City Dept. of Public									
	N.A.S.N.-9A	Health & Safety, & U.S.D.H.E.W., P.H.S.	3/20/57	12/20/57	1	24 hr.	1/ 2 wk.	63 69	82	S-34 N-3	
Winnebago											
Rockford	Suspended Particulate	Rockford City H.D., &									
	N.A.S.N.-10A	U.S.D.H.E.W., P.H.S.	1/ 5/59	6/21/59	1	24 hr.	1/ 2 wk.	63 69	82	R-10 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: INDIANA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Allen											
Ft. Wayne	Suspended Particulate N.A.S.N.-9A	Ft. Wayne Dept. of City Utilities U.S.D.H.E.W., P.H.S.	1/13/57	12/19/57	1	24 hr.	1/ 2 wk.	63 69	82	F-7 N-3	
Lake											
East Chicago	Suspended Particulate N.A.S.N.-11	East Chicago Bureau of A.P., & U.S.D.H.E.W., P.H.S.	1/17/56	12/ 5/56	1	24 hr.	1-4/ mo.	63 69	82	E-2 N-3 E-10	
			1/ 4/56	11/ 8/56	1	24 hr.	1-3/ mo.				
			1/11/56	11/28/56	1	24 hr.	1-3/ mo.				
	N.A.S.N.-8A		1/11/56	11/14/56	1	24 hr.	1-3/ mo.				
			2/ 6/57	11/21/57	1	24 hr.	1/ 2 wk.				
			1/ 4/57	12/12/57	1	24 hr.	1/ 2 wk.				
			2/15/57	12/ 5/57	1	24 hr.	1/ 2 wk.				
			2/15/57	12/30/57	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-9		1/14/58	11/15/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-10A		1/ 9/59	6/12/59	1	24 hr.	1/ 2 wk.				
Lake											
Gary	Suspended Particulate N.A.S.N.-9	Gary City Fire Dept., & U.S.D.H.E.W., P.H.S.	1/11/58	12/30/58	1	24 hr.	1/ 2 wk.	63 69	82	G-3 N-3	
Lake											
Hammond	Suspended Particulate N.A.S.N.-10A	Hammond City H.D. & U.S.D.H.E.W., P.H.S.	1/ 5/59	6/23/59	1	24 hr.	1/ 2 wk.	63 69	82	H-2 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: INDIANA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Marion											
Indianapolis	Suspended Particulate	Indianapolis Bureau of A.P.C.									
	N.A.S.N.-3A	& U.S.D.H.E.W.,	1/ 8/57	12/31/57	1	24 hr.	1/ 2 wk.	63	82	I-4	
	N.A.S.N.-5	P.H.S.	1/ 8/58	12/16/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/14/59	6/ 5/59	1	24 hr.	1/ 2 wk.				
Montgomery											
Turkey Run State Park (N.U.)	Suspended Particulate	State Dept. of Conservation &									
	N.A.S.N.-2	U.S.D.H.E.W.,	1/ 9/58	12/ 8/58	1	24 hr.	1/ 2 wk.	63	82	I-13	
	N.A.S.N.-2A	P.H.S.	2/ 2/59	5/22/59	1	24 hr.	1/ 2 wk.	69		N-3	
Saint Joseph											
South Bend	Suspended Particulate	South Bend City Dept. of Engr. &									
	N.A.S.N.-10A	U.S.D.H.E.W., P.H.S.	1/22/59	6/25/59	1	24 hr.	1/ 2 wk.	63	82	S-27	
Vanderburgh											
Evansville	Suspended Particulate	Evansville Dept. of Smoke Control									
	N.A.S.N.-9A	& U.S.D.H.E.W., P.H.S.	1/13/57	12/30/57	1	24 hr.	1/ 2 wk.	63	82	E-9	
								69		N-3	
	Suspended Particulate	Evansville Dept. of Smoke Control									
	Soiling		2/ 2/58	2/ 2/59	1	1 hr.	Cont.	59	72	E-9	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: INDIANA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Vigo Terre Haute	Suspended Particulate N.A.S.N.-9	Terre Haute Dept. of Smoke Supervision and Inspection, & U.S.D.H.E.W., P.H.S.	1/ 7/58	11/16/58	1	24 hr.	1/ 2 wk.	63 69	82	T-5 N-3	

A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: IOWA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Clayton											
Backbone State Park (N.U.)	Suspended Particulate	State Conservation Commission,									
	N.A.S.N.-2	& U.S.D.H.E.W.,	4/19/58	12/19/58	1	24 hr.	1/ 2 wk.	63	82	I-8	
	N.A.S.N.-2A	P.H.S.	1/13/59	6/25/59	1	24 hr.	1/ 2 wk.	69		N-3	
Polk											
Des Moines	Suspended Particulate	Des Moines-Polk C.H.D., &									
	N.A.S.N.-3A	U.S.D.H.E.W.,	1/11/57	12/21/57	1	24 hr.	1/ 2 wk.	63	82	D-11	
	N.A.S.N.-5	P.H.S.	1/ 7/58	12/18/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/12/59	6/23/59	1	24 hr.	1/ 2 wk.				
Scott											
Davenport	Suspended Particulate	Davenport City B.H., &									
	N.A.S.N.-10	U.S.D.H.E.W., P.H.S.	3/21/58	12/30/58	1	24 hr.	1/ 2 wk.	63 69	82	D-4 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: KANSAS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Ellis											
Hays (N.U.)	Suspended Particulate	Kansas S.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-8	P.H.S.	5/24/57	12/12/57	1	24 hr.	1/ 2 wk.	63	82	K-4	
	N.A.S.N.-5		1/ 5/58	10/21/58	1	24 hr.	1/ 2 wk.	69		N-3	
Sedgwick											
Wichita	Suspended Particulate	Wichita City C.H.D., &									
	N.A.S.N.-3A	U.S.D.H.E.W.,	1/ 4/57	12/19/57	1	24 hr.	1/ 2 wk.	63	82	W-12	
	N.A.S.N.-5	P.H.S.	1/ 4/58	11/19/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/27/59	6/15/59	1	24 hr.	1/ 2 wk.				
Shawnee											
Topeka	Suspended Particulate	Topeka City C.H.D., &									
	N.A.S.N.-10A	U.S.D.H.E.W., P.H.S.	1/ 8/59	6/20/59	1	24 hr.	1/ 2 wk.	63	82	I-9	
								69		N-3	
Wyandotte											
Kansas City	Suspended Particulate	Kansas City C.H.D., &									
	N.A.S.N.-1	U.S.D.H.E.W.,	2/21/56	10/ 2/56	1	24 hr.	1-4/ mo.	63	82	K-2	
	N.A.S.N.-8A	P.H.S.	2/20/57	6/20/57	1	24 hr.	1/ 2 wk.	69		N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: KENTUCKY

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Jefferson Louisville	Acetylene	(Joint Study) Jefferson C.A.P.C.B., Kentucky D.H.; Louisville Jefferson C.B.H. & U.S.D.H.E.W., P.H.S.	--/--/56	--/--/57	2	2 hr.	12/ day	53	--	J-2 K-6	
	Aldehydes		--/--/56	--/--/57	2	To 1 hr.	2/ day	37	--	C-25	
			--/--/56	--/--/57	2	2 hr.	12/ day	53	--	1-16	
	Chlorides		--/--/56	--/--/57	2	2 hr.	12/ day	53	--		
			--/--/56	--/--/57	2	To 1 hr.	2/ day	37	--		
	Corrosion		--/--/56	--/--/57	6	-	-	74	22		A
	Dustfall Qualitative		--/--/56	--/--/57	71	3 days	Cont.	2	--		B
	Dustfall Combustibles Calcium Oxide Iron & Aluminum Oxide Magnesium Oxide Silicon Oxide pH	Jefferson C.A.P.C.B. (only)	1/ 1/56	6/30/59	15-25	30 days	12/ year	15	--	J-2	D
	Nitrogen Dioxide	(Joint Study) Jefferson C.A.P.C.B., Kentucky D.H. Louisville Jefferson C.B.H. & U.S.D.H.E.W., P.H.S.	--/--/56	--/--/57	2	2 hr.	12/ day	53	--	J-2 K-6	
	Nitrogen Oxides		--/--/56	--/--/57	2	To 1 hr.	2/ day	37	--	C-25 1-16	
	Odor & Irritation		--/--/56	--/--/57	rov'g.	19 hr.	Var.	32	56		E
			--/--/56	--/--/57	-	-	Var.	76	55		

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: KENTUCKY

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Jefferson Louisville	Acetylene	(Joint Study) Jefferson C.A.P.C.B.,	--/--/56	--/--/57	2	2 hr.	12/ day	53	--	J-2 K-6	
	Aldehydes	Kentucky D.H.;	--/--/56	--/--/57	2	To 1 hr.	2/ day	37	--	C-25	
		Louisville	--/--/56	--/--/57	2	2 hr.	12/ day	53	--	1-16	
	Chlorides	Jefferson C.B.H. & U.S.D.H.E.W.,	--/--/56	--/--/57	2	2 hr.	12/ day	53	--		
		P.H.S.	--/--/56	--/--/57	2	To 1 hr.	2/ day	37	--		
	Corrosion		--/--/56	--/--/57	6	-	-	74	22		A
	Dustfall Qualitative		--/--/56	--/--/57	71	3 days	Cont.	2	--		B
	Dustfall Combustibles Calcium Oxide Iron & Aluminum Oxide Magnesium Oxide Silicon Oxide pH	Jefferson C.A.P.C.B. (only)	1/ 1/56	6/30/59	15-25	30 days	12/ year	15	--	J-2	D
	Nitrogen Dioxide	(Joint Study) Jefferson C.A.P.C.B.,	--/--/56	--/--/57	2	2 hr.	12/ day	53	--	J-2 K-6	
	Nitrogen Oxides	Kentucky D.H. Louisville	--/--/56	--/--/57	2	To 1 hr.	2/ day	37	--	C-25 1-16	
	Odor & Irritation	Jefferson C.B.H. & U.S.D.H.E.W., P.H.S.	--/--/56	--/--/57	rov'g.	19 hr.	Var.	32	56		E
			--/--/56	--/--/57	-	-	Var.	76	55		

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: KENTUCKY

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Jefferson Louisville	Oxidant	(Joint Study) Jefferson C.A.P.C.B.,	--/--/56	--/--/57	2	To 1 hr.	2/ day	37	--		
		Kentucky D.H.	--/--/56	--/--/57	2	2 hr.	12/ day	53	--		
	Ozone	Louisville Jefferson C.B.H. & U.S.D.H.E.W.,	--/--/56	--/--/57	2	To 1 hr.	2/ day	37	--		
			--/--/56	--/--/57	2	2 hr.	12/ day	53	--		
	Phenol	P.H.S.	--/--/56	--/--/57	2	2 hr.	12/ day	53			
	Sulfur Dioxide		--/--/56	--/--/57	2	Cont.	Cont.	56	79		
	Sulfur Dioxide	Jefferson C.A.P.C.B. (only)	1/ 1/56	6/30/59	1	Cont.	Cont.	56	79	J-2	
	Suspended Particulate	Jefferson C.A.P.C.B. &									
	N.A.S.N.-6	U.S.D.H.E.W.,	1/ 6/56	4/ 5/56	1	24 hr.	1-2 mo.	63	82	J-2	
	N.A.S.N.-6	P.H.S.	1/ 6/56	10/ 4/56	1	24 hr.	1-3 mo.	69			
	N.A.S.N.-8A		1/ 4/57	12/16/57	1	24 hr.	1/ 2 wk.			N-3	
	N.A.S.N.-5		1/ 7/58	12/10/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/13/59	6/30/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	Jefferson C.A.P.C.B. (only)	1/ 1/56	6/30/59	2	1 hr.	Cont.	59	72	J-2	
	Suspended Particulate Qualitative	(Joint Study) Jefferson C.A.P.C.B., Kentucky D.H. Louisville & Jefferson C.B.H. U.S.D.H.E.W., P.H.S.	--/--/56	--/--/57	rov'g.	Var.	Var.	60	65	J-2 K-6 C-25	
	Suspended Particulate Soiling		--/--/56	--/--/57	6	2 hr.	Cont.	59	72	T-16	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: KENTUCKY

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Jefferson Louisville	Suspended Particulate Benzene Sol. Calcium Chlorides Nitrates Sulfates	(Joint Study) Jefferson C.A.P.C.B., Kentucky D.H. Louisville Jefferson C.B.H. & U.S.D.H.E.W., P.H.S.	--/--/56	--/--/57	6	8 hr.	3/ day	63 69	82		C
Pulaski Cumberland Falls State Park (N.U.)	Suspended Particulate N.A.S.N.-5 N.A.S.N.-2A	Pulaski C.H.D., U.S.D.H.E.W., P.H.S.	1/16/58 1/ 9/59	12/29/58 6/27/59	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	P-18 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: KENTUCKY

A. One steel spring mounted inside of station and another outside.

B. Mostly calcium and silicon, N.B.S. x-ray diffraction.

C. Two high-volume samplers alternating on 8-hour cycles.

D. Residential and industrial areas.

E. Sampling in areas of complaint - N.B.S. mass spectrometer.

STATE: LOUISIANA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Caddo Shreveport	Suspended Particulate N.A.S.N.-10A	Caddo-Shreveport Health Unit; U.S.D.H.E.W., P.H.S.	1/ 8/59	6/ 8/59	1	24 hr.	1/ 2 wk.	63 69	82	C-1 N-3	
East Baton Rouge Baton Rouge	Suspended Particulate N.A.S.N.-10B	E. Baton Rouge Health Unit; & U.S.D.H.E.W., P.H.S.	1/11/57	12/23/57	1	24 hr.	1/ 2 wk.	63 69	82	E-1 N-3	
Orleans New Orleans	Suspended Particulate N.A.S.N.-6	Louisiana S.H.D.; & U.S.D.H.E.W., P.H.S.	1/ 5/56	5/24/56	2	24 hr.	3-5/ mo.	63	82	L-10	A
	N.A.S.N.-8A		1/ 9/57	12/24/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/17/58	12/18/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 6/59	6/27/59	1	24 hr.	1/ 2 wk.				
Saint Tammany (N.U.)	Suspended Particulate N.A.S.N.-2	St. Tammany Health Unit & U.S.D.H.E.W., P.H.S.	11/ 9/58	12/28/58	1	24 hr.	1/ 2 wk.	63 69	82	S-6 N-3	
Tangipahoa (N.U.)	Suspended Particulate N.A.S.N.-2A	St. Tammany Health Unit & U.S.D.H.E.W., P.H.S.	1/ 5/59	6/23/59	1	24 hr.	1/ 2 wk.	63 69	82	S-6 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: LOUISIANA

A. During a two-year period beginning September 1, 1957, special samples were collected at one station for a cancer study under the auspices of the National Cancer Institute. Samples were collected using one high volume sampler with 8" x 10" glass fiber filter and one low-volume sampler, 12 cfm positive displacement pump, with an 8" x 10" millipore filter.

The high-volume samples were collected at the rate of 3 per week per station with sampling periods of from 48 to 72 hours. Step-down voltage transformers were used to reduce the sampling rate to obtain the longer sampling periods. The low-volume samplers were operated continuously until the pressure drop across the filter exceed 5" Hg., or at the end of 30 days whichever occurred first.

The high-volume samples were analyzed for total weight, benzene solubles, and radioactivity. The benzene solubles were fractionated into water soluble, bases, acids, and neutrals. The neutral fraction was in turn separated into aromatic hydrocarbons, aliphatic hydrocarbons, and oxygenated components. The low-volume samples were weighed and the collected material mechanically removed for use in animal experiments. Data from this study are available from the Robert A. Taft Sanitary Engineering Center (Agency C-25 or N-3).

STATE: MAINE

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Cumberland											
Portland	Suspended Particulate	Maine S.H.D. & U.S.D.H.E.W.,									
	N.A.S.N.-8A	P.H.S.	2/18/57	12/23/57	1	24 hr.	1/ 2 wk.	63	82	M-4	
	N.A.S.N.-12		1/15/58	12/ 6/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/23/59	6/ 6/59	1	24 hr.	1/ 2 wk.				
Hancock											
Acadia Nat'l. Park (N.U.)	Suspended Particulate	Nat'l. Park Service,									
	N.A.S.N.-8A	U.S.D.H.E.W.,	4/10/57	12/26/57	1	24 hr.	1/ 2 wk.	63	82	A-1	
	N.A.S.N.-5	P.H.S.	1/ 4/58	12/12/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 4/59	6/12/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MARYLAND

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Baltimore (City)	Suspended Particulate Total Weight	Baltimore City H.D.	1/13/56	6/30/59	2	24 hr.	1/5 days	69	--	B-2	
	Hydrogen Sulfide	Baltimore City H.D.	1/ 1/56	4/ 5/59	1	2 hr.	Cont.	21	42	B-2	
	Sulfur Dioxide	Baltimore City H.D.	1/ 1/56	10/10/57	1	Cont.	Cont.	57	80	B-2	
			1/ 1/56	6/30/59	1	Cont.	Cont.				
			10/2 /57	11/24/58	1	Cont.	Cont.				
			7/ 7/58	6/30/59	1	Cont.	Cont.				
			11/24/58	6/30/59	1	Cont.	Cont.				
			1/ 1/59	6/30/59	1	Cont.	Cont.	56	79		
	Suspended Particulate N.A.S.N.-1	Baltimore City H.D., & U.S.D.H.E.W., P.H.S.	5/21/56	12/27/56	1	24 hr.	1-5/ mo.	63	82	B-2	
	N.A.S.N.-8A		1/10/57	12/18/57	1	24 hr.	1/ 2 wk.	69			
	N.A.S.N.-5		1/14/58	12/24/58	1	24 hr.	1/ 2 wk.			N-3	
	N.A.S.N.-2A		1/ 3/59	6/22/59	1	24 hr.	1/ 2 wk.				A
	Suspended Particulate Soiling	Baltimore City H.D.	1/ 1/56	6/30/59	1	2 hr.	Cont.	59	72	B-2	
Baltimore Edgemeer	Dustfall Total Weight	Maryland S.D.H.	4/24/59	6/30/59	1	30 days	12/ year	2	--	M-7	
	Sulfur Dioxide	Maryland S.D.H.	9/ 8/58	6/30/59	1	Cont.	Cont.	56	79	M-7	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MARYLAND

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Baltimore											
Edgemeer	Suspended Particulate Total Weight Benzene Sol.	Maryland S.D.H.	9/ 8/58	6/30/59	1	24 hr.	1/ 2 wk.	67	--	M-7	
	Suspended Particulate Soiling	Maryland S.D.H.	9/ 8/58	6/30/59	1	2 hr.	Cont.	59	72	M-7	
Calvert											
Solomon's Island (N.U.)	Suspended Particulate	Worcester C.H.D. Maryland S.D.H. &									
	N.A.S.N.-8	U.S.D.H.E.W.,	10/ 5/58	12/26/58	1	24 hr.	1/ 2 wk.	63	82	W-18	
	N.A.S.N.-2A	P.H.S.	1/ 7/59	6/25/59	1	24 hr.	1/ 2 wk.	69		M-7 N-3	
Carroll											
Westminster	Dustfall Total Weight	Maryland S.D.H.	4/29/59	6/30/59	1	30 days	12/ year	2	--	M-7	
	Suspended Particulate Total Weight Benzene Sol.	Maryland S.D.H.	9/11/58	6/30/59	1	24 hr.	1/ 2 wk.	67	--	M-7	
Washington											
Hagerstown	Dustfall Total Weight	Maryland S.D.H.	4/29/59	6/30/59	2	30 days	12/ year	2	--	M-7	
	Suspended Particulate Total Weight	Maryland S.D.H.	7/23/57	6/30/59	1	24 hr.	1/ 2 wk.	67	--	M-7	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MARYLAND

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Worcester Pocomoke	Suspended Particulate N.A.S.N.-8	Worcester C.H.D. U.S.D.H.E.W., P.H.S.	1/14/58	9/18/58	1	24 hr.	1/ 2 wk.	63 69	82	W-18 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: MARYLAND

A. Three samples also collected at a second station operated from May 12, 1959 to June 10, 1959. These samples were analyzed for total weight of particulates and radioactivity.

STATE: MASSACHUSETTS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Berkshire Pittsfield	Dustfall Total Weight Insolubles Solubles	Mass. D.P.H.	1/ 1/56	12/31/56	1	30 days	12/ year	2	--	M-10	
	Suspended Particulate N.A.S.N.-1	Mass. D.P.H. & U.S.D.H.E.W., P.H.S.	1/12/56	10/31/56	1	24 hr.	2-4/ mo.	63 69	82	M-10 N-3	
Bristol Fall River	Dustfall Total Weight Insolubles Solubles	Mass. D.P.H.	1/ 1/58	12/31/58	1	30 days	12/ year	2	--	M-10	
	Suspended Particulate N.A.S.N.-10	Fall River Fire Dept., & U.S.D.H.E.W., P.H.S.	1/ 8/58	12/22/58	1	24 hr.	1/ 2 wk.	63 69	82	F-1 N-3	
Bristol Mansfield	Suspended Particulate Total Weight Benzene Sol	Mass. D.P.H.	8/13/57 2/10/58	8/27/58 2/27/58	4	24 hr.	1/ day	63 69	82	M-10	
	Suspended Particulate Soiling	Mass. D.P.H.	8/13/57 2/10/58	8/27/57 2/27/58	5	2 hr.	Cont.	59	72	M-10	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MASSACHUSETTS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Bristol											
New Bedford	Dustfall	Mass. D.P.H.									
	Total Weight		1/ 1/59	6/30/59	1	30 days	12/ year	2	--	M-10	
	Insolubles										
	Solubles										
	Suspended Particulate	New Bedford City B.H., &									
	N.A.S.N.-10A	U.S.D.H.E.W., P.H.S.	1/20/59	6/ 6/59	1	24 hr.	1/ 2 wk.	63 69	82	N-14 N-3	
Essex											
Lawrence	Dustfall	Mass. D.P.H.									
	Total Weight		1/ 1/57	6/30/59	1	30 days	12/ year	2	--	M-10	
	Insolubles										
	Solubles										
	Suspended Particulate	Mass. D.P.H. & U.S.D.H.E.W.,									
	N.A.S.N.-9A	P.H.S.	1/ 1/57	12/29/57	1	24 hr.	1/ 2 wk.	63 69	82	M-10 N-3	
	Suspended Particulate	Mass. D.P.H.									
	Soiling		5/--/56	12/--/57	1	2 hr.	Cont.	59	72	M-10	
Essex											
Lynn	Dustfall	Mass. D.P.H.									
	Total Weight		1/ 1/57	12/31/57	1	30 days	12/ year	2	--	M-10	
	Insolubles		1/ 1/59	6/30/59	1	30 days	12/ year				
	Solubles										

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MASSACHUSETTS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Essex											
Lynn	Suspended Particulate	Lynn City H.D. & U.S.D.H.E.W.,									
	N.A.S.N.-9A	P.H.S.	2/27/57	12/16/57	1	24 hr.	1/ 2 wk.	63	82	L-12	
	N.A.S.N.-10A		1/20/59	6/ 6/59	1	24 hr.	1/ 2 wk.	69		N-3	
Hampden											
Springfield	Dustfall										
	Total Weight	Mass. D.P.H.	1/ 1/57	12/31/57	1	30 days	12/ year	2	--	M-10	
	Insolubles		1/ 1/59	6/30/59	1	30 days	12/ year				
	Solubles										
	Suspended Particulate	Springfield City H.D., &									
	N.A.S.N.-10B	U.S.D.H.E.W.,	1/12/57	12/18/57	1	24 hr.	1/ 2 wk.	63	82	S-35	
	N.A.S.N.-2A	P.H.S.	1/22/59	6/22/59	1	24 hr.	1/ 2 wk.	69		N-3	
Middlesex											
Cambridge	Dustfall	Mass. D.P.H.									
	Total Weight		1/ 1/59	6/30/59	1	30 days	12/ year	2	--	M-10	
	Insolubles										
	Solubles										
	Suspended Particulate	Mass. D.P.H. & U.S.D.H.E.W.,									
	N.A.S.N.-10A	P.H.S.	1/10/59	6/23/59	1	24 hr.	1/ 2 wk.	63	82	M-10	
								69		N-3	
Middlesex											
Everett	Dustfall	Mass. D.P.H.									
	Total Weight		1/ 1/56	12/31/56	1	30 days	12/ year	2	--	M-10	
	Insolubles										
	Solubles										

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MASSACHUSETTS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Middlesex Everett	Suspended Particulate N.A.S.N.-6	Mass. D.P.H., & U.S.D.H.E.W., P.H.S.	1/ 4/56	10/17/56	1	24 hr.	4-5/ mo.	63 69	82	M-10 N-3	
Middlesex Lowell	Dustfall Total Weight Insolubles Solubles	Mass. D.P.H.	1/ 1/59	6/30/59	1	30 days	12/ year	2	--	M-10	
	Suspended Particulate N.A.S.N.-10A	Lowell City H.D. & U.S.D.H.E.W., P.H.S.	1/ 8/59	6/26/59	1	24 hr.	1/ 2 wk.	63 69	82	L-11 N-3	
Middlesex Sommerville	Dustfall Total Weight Insolubles Solubles	Mass. D.P.H.	1/ 1/57	12/31/57	1	30 days	12/ year	2	--	M-10	
	Suspended Particulate N.A.S.N.-9A	Sommerville City B.H., & U.S.D.H.E.W., P.H.S.	1/ 1/57	12/ 29/57	1	24 hr.	1/ 2 wk.	63 69	82	S-25 N-3	
Middlesex Waltham & Weston	Dustfall Total Weight Insoluble Soluble	Mass. D.P.H.	10/--/56	1/--57	4	30 days	12/ year	2	--	M-10	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MASSACHUSETTS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Middlesex											
Waltham & Weston	Suspended Particulate	Mass. D.P.H.									
	Total Weight		9/11/58	10/ 3/58	5	8-10 hr.	1/ day	63	--	M-10	
	Volatiles							69			
Nantucket											
Nantucket Island (N.U.)	Suspended Particulate	U.S.C.G., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-2		1/ 7/58	12/28/58	1	24 hr.	1/ 2 wk.	63	82	U-1	
	N.A.S.N.-2A		1/ 6/59	6/29/59	1	24 hr.	1/ 2 wk.	69		N-3	
Norfolk											
Braintree	Suspended Particulate	Mass. D.P.H.									
	Total Weight		8/ 7/58	10/27/58	1	24 hr.	1/ day	63		M-10	
			10/27/58	6/30/59	1	24 hr.	1/ 2-3 days				A
	Suspended Particulate	Mass. D.P.H.									
	Soiling		8/ 7/58	10/24/58	2	2 hr.	Cont.	59	72	M-10	
	Suspended Particulate	Mass. D.P.H.									
	Total Weight		12/11/57	1/31/58	3	24 hr.	1/ day	63	82	M-10	
	Benzene Sol.										
	Nitrates										
	Sulfates										
	pH										

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MASSACHUSETTS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Norfolk Quincy	Dustfall Total Weight Insolubles Solubles	Mass. D.P.H.	1/ 1/58	12/31/58	1	30 days	12/ year	2	--	M-10	
	Suspended Particulate N.A.S.N.-10	Quincy City H.D., & U.S.D.H.E.W., P.H.S.	1/14/58	12/27/58	1	24 hr.	1/ 2 wk.	63 69	82	N-3 Q-1	
Norfolk Weymouth	Suspended Particulate Soiling	Mass. D.P.H.	8/ 7/58	10/27/58	1	2 hr.	Cont.	59	72	M-10	
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	Mass. D.P.H.	1/13/58	1/31/58	1	24 hr.	1/ day	63 69	82	M-10	
Plymouth Brockton	Dustfall Total Weight Insoluble Soluble	Mass. D.P.H.	1/ 1/58	12/31/58	1	30 days	12/ year	2	--	M-10	
	Suspended Particulate N.A.S.N.-10	Brockton City H.D & U.S.D.H.E.W., P.H.S.	1/31/58	12/14/58	1	24 hr.	1/ 2 wk.	63 69	82	B-12 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MASSACHUSETTS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Suffolk											
Boston	Dustfall	Mass. D.P.H.									
	Total Weight		1/ 1/56	6/30/59	1	30 days	12/year	2	--	M-10	
	Insoluble										
	Soluble										
	Oxidant	Mass. D.P.H.	4/ 2/58	1/19/59	1	30 min.	4-8/ wk.	52	59	M-10	B
	Sulfur Dioxide	Mass. D.P.H.	4/ 2/58	1/19/59	1	30 min.	4-8/ wk.	51	81	M-10	B
	Suspended Particulate	Mass. D.P.H., & U.S.D.H.E.W.,									
	N.A.S.N.-6	P.H.S.	1/ 4/56	12/27/56	1	24 hr.	2-5/ mo.	63	82	M-10	
	N.A.S.N.-8A		1/ 3/57	12/24/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/ 8/58	12/25/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 7/59	6/27/59	1	24 hr.	1/ 2 wk				
	Suspended Particulate	Mass. D.P.H.									
	Total Weight		6/23/58	12/10/58	3	24 hr.	1/ day	63	82	M-10	
	Benzene Sol.		12/10/58	2/ 9/59	3	24 hr.	1/ 2-3 days	69			A
			2/ 9/59	6/30/59	2	24 hr.	1/ 2-3 days				A
	Suspended Particulate	Mass. D.P.H.									
	Soiling		5/ 1/56	12/31/58	1	2 hr.	Cont.	59	72	M-10	
Worcester											
Milford	Suspended Particulate	Mass. D.P.H.									
	Total Weight		8/ 1/56	8/14/56	3	24 hr.	1/ day	63	82	M-10	
	Benzene Sol.		1/25/57	2/14/57	3	24 hr.	1/ day	69			

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MASSACHUSETTS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Worcester											
Milford	Suspended Particulate	Mass. D.P.H.									
	Soiling		8/ 1/56	8/14/56	3	2 hr.	Cont.	59	72	M-10	
			1/25/57	2/14/57	3	2 hr.	Cont.				
Worcester											
Worcester	Dustfall	Mass. D.P.H.									
	Total Weight		1/ 1/57	12/31/57	1	30 days	12/ year	2	--	M-10	
	Insolubles		1/ 1/59	6/30/59	1	30 days	12/ year				
	Solubles										
	Suspended Particulate	Worcester City H.D., &									
	N.A.S.N.-10B	U.S.D.H.E.W.,	1/12/57	12/18/57	1	24 hr.	1/ 2 wk.	63	82	M-19	
	N.A.S.N.-2A	P.H.S.	1/12/59	6/30/59	1	24 hr.	1/ 2 wk.	69		M-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: MASSACHUSETTS

A. One hour on; two hours off.

B. Samples collected one day per week.

STATE: MICHIGAN

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Genesee											
Flint	Suspended Particulate	Flint Dept. of Pub. Works &									
	N.A.S.N.-10B	Utilities, &	1/10/57	12/22/57	1	24 hr.	1/ 2 wk.	63	82	F-2	
	N.A.S.N.-2B	U.S.D.H.E.W., P.H.S.	1/ 6/59	6/19/59	1	24 hr.	1/ 2 wk.	69		N-3	
Huron											
Sleeper State Park (N.U.)	Suspended Particulate	Mich. S.H.D., State Conservation Dept., &									
	N.A.S.N.-8		2/21/57	12/27/57	1	24 hr.	1/ 2 wk.	63	82	M-18	
	N.A.S.N.-5	U.S.D.H.E.W.,	1/ 9/58	12/17/58	1	24 hr.	1/ 2 wk.	69		M-17	
	N.A.S.N.-2A	P.H.S.	1/27/59	6/13/59	1	24 hr.	1/ 2 wk.			N-3	
Ingham											
Lansing	Suspended Particulate	Lansing City A.P.B., &									
	N.A.S.N.-10B	U.S.D.H.E.W., P.H.S.	1/ 7/57	12/29/57	1	24 hr.	1/ 2 wk.	63 69	82	L-1 N-3	
Jackson											
Jackson	Suspended Particulate	Jackson City H.D. & U.S.D.H.E.W.,									
	N.A.S.N.-10	P.H.S.	1/ 1/58	12/24/58	1	24 hr.	1/ 2 wk.	63 69	82	J-1 N-3	
Kalamazoo											
Kalamazoo	Suspended Particulate	Kalamazoo City-County H.D., &									
	N.A.S.N.-9A	U.S.D.H.E.W., P.H.S.	1/ 7/57	12/30/57	1	24 hr.	1/ 2 wk.	63 69	82	K-1 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MICHIGAN

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Kent											
Grand Rapids	Suspended Particulate	Grand Rapids City A.P.C. & Heating									
	N.A.S.N.-9A	Dept., &	1/14/57	10/ 1/57	1	24 hr.	1/ 2 wk.	63	82	G-8	
	N.A.S.N.-2A	U.S.D.H.E.W., P.H.S.	2/25/59	6/19/59	1	24 hr.	1/ 2 wk.	69		N-3	
Saginaw											
Saginaw	Suspended Particulate	Saginaw City H.D. & U.S.D.H.E.W.,									
	N.A.S.N.-10	P.H.S.	1/ 4/58	12/10/58	1	24 hr.	1/ 2 wk.	63	82	S-2	
								69		N-3	
Wayne											
(County)	Dustfall	Wayne C.D.H.									
	Total Weight		7/ 1/57	6/30/59	24	36 days	10/ year	15	--	W-6	
	Insolubles										
	Solubles										
	Volatiles										
	Fe								44		
	pH								68		
Wayne											
Dearborn	Suspended Particulate	Dearborn City Engr. Dept., &									
	N.A.S.N.-10A	U.S.D.H.E.W., P.H.S.	1/ 8/59	6/21/59	1	24 hr.	1/ 2 wk.	63	82	D-7	
								69		N-3	
Wayne											
Detroit	Dustfall	Detroit B.A.P.C.									
	Total Weight		1/ 1/56	6/30/59	20	1 mo.	12/ year	20	--	D-12	
	Combustibles										

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MICHIGAN

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Wayne Detroit	Dustfall Fe	Detroit B.A.P.C.	7/15/58	8/ 1/58	4	24 hr.	1/ day	2	44	D-12	B
			5/15/59	6/ 1/59	4	24 hr.	1/ day	--	--		
	Hydrogen Sulfide	Detroit B.A.P.C.	1/--/56	2/--/56	2	30 min.	Cont.	58	42	D-12	C
	Sulfur Dioxide	Detroit B.A.P.C.	9/21/56	10/31/56	1	Cont.	Cont.	56	79	D-12	D
	Suspended Particulate	Detroit B.A.P.C. & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-1		3/16/56	12/ 5/56	2	24 hr.	1-7/ mo.	63	82	D-12	
	N.A.S.N.-8A		1/ 9/57	12/27/57	1	24 hr.	1/ 2 wk.	69		N-3	A
	N.A.S.N.-5		1/23/58	12/31/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 8/59	6/24/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Total Weight Combustibles	Detroit B.A.P.C.	7/ 1/58	7/15/58	1	24 hr.	1/ day	68	--	D-12	E
	Phenols	Wayne State U.	--/--/58	--/--/59	4	4-24 hr.	Var.	63 69 31 37	85	S-44	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: MICHIGAN

A. During a two-year period beginning September 1, 1957, special samples were collected at two stations for a cancer study under the auspices of the National Cancer Institute. Samples were collected using four high-volume samplers with 8" x 10" glass fiber filters and one low-volume sampler, 12 cfm positive displacement pump, with an 8" x 10" millipore filter.

The high-volume samples were collected at the rate of 3 per week per station with sampling periods of from 48 to 72 hours. Step-down voltage transformers were used to reduce the sampling rate to obtain the longer sampling periods. The low-volume samplers were operated continuously until the pressure drop across the filter exceeded 5" Hg., or at the end of 30 days whichever occurred first.

The high-volume samples were analyzed for total weight, benzene solubles, and radioactivity. The benzene solubles were fractionated into water soluble, bases, acids, and neutrals. The neutral fraction was in turn separated into aromatic hydrocarbons, aliphatic hydrocarbons, and oxygenated components. The low-volume samples were weighed and the collected material mechanically removed for use in animal experiments. Data from this study are available from the Robert A. Taft Sanitary Engineering Center (Agency C-25 or N-3).

B. Vicinity of ferrous foundry.

C. Vicinity of oil refinery.

D. Vicinity of lead-chamber acid plant.

E. Vicinity of coal yard.

STATE: MINNESOTA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Cook											
Superior Nat'l. Forest (N.U.)	Suspended Particulate	Nat'l. Forest Service &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	3/29/57	12/30/57	1	24 hr.	1/ 2 wk.	63	82	S-41	
	N.A.S.N.-5	P.H.S.	1/18/58	12/31/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 8/59	6/30/59	1	24 hr.	1/ 2 wk.				
Hennepin											
Minneapolis	Suspended Particulate Total Weight	Minneapolis Dept. of Bldgs.	11/--/58	6/30/59	1	24 hr.	1/ wk.	63 67	--	M-21	
	Suspended Particulate	Minn. S.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-6	P.H.S.	1/ 3/56	12/11/56	1	24 hr.	2-5/ mo.	63	82	M-22	
	N.A.S.N.-8		1/12/57	12/21/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/ 2/58	12/30/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 7/59	6/26/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	Minn. S.H.D.	3/31/58	6/30/59	1	2 hr.	Cont.	59	72	M-22	
Ramsey											
St. Paul	Suspended Particulate	St. Paul Dept. of Public Utilities									
	N.A.S.N.-9	& U.S.D.H.E.W., P.H.S.	1/ 2/58	12/27/58	1	24 hr.	1/ 2 wk.	63 69	82	S-5 N-3	
St. Louis											
Duluth	Suspended Particulate	Duluth City H.D. U.S.D.H.E.W.,									
	N.A.S.N.-10B	P.H.S.	1/ 5/57	12/18/57	1	24 hr.	1/ 2 wk.	63	82	D-17	
	N.A.S.N.-2A		1/ 8/59	6/27/59	1	24 hr.	1/ 2 wk.	69		N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MISSISSIPPI

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Hinds											
Jackson	Suspended Particulate	Miss. S.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-8A	P.H.S.	1/ 3/57	12/30/57	1	24 hr.	1/ 2 wk.	63	82	M-24	
	N.A.S.N.-12		1/10/58	12/31/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/12/59	6/29/59	1	24 hr.	1/ 2 wk.				
Jackson											
Ocean Springs (N.U.)	Suspended Particulate	Gulf Coast Res. Lab., &									
	N.A.S.N.-8	U.S.D.H.E.W.,	8/ 9/57	12/16/57	1	24 hr.	1/ 2 wk.	63	82	M-23	
	N.A.S.N.-2	P.H.S.	1/ 2/58	12/16/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		2/27/59	6/23/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MISSOURI

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Caldwell											
Breckenridge	Suspended Particulate N.A.S.N.-1	St. Louis C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 3/56	5/15/56	1	24 hr.	3-5/ mo.	63 69	82	S-3 N-3	
Jackson											
Kansas City	Suspended Particulate	Kansas City H.D., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-7		1/ 4/56	10/17/56	1-2	24 hr.	3-5/ mo.	63	82	K-3	
	N.A.S.N.-8		1/14/57	12/18/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-12		1/ 9/58	12/21/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 7/59	6/27/59	1	24 hr.	1/ 2 wk.				
St. Louis											
Brentwood	Suspended Particulate	St. Louis C.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-1	P.H.S.	1/ 3/56	2/25/56	1	24 hr.	1-4/ mo.	63 69	82	S-3 N-3	
St. Louis (City)	Suspended Particulate	St. Louis City H.D., &									
	N.A.S.N.-11	U.S.D.H.E.W.,	1/ 3/56	12/ 3/56	1-2	24 hr.	1-5/ mo.	63	82	S-4	
	N.A.S.N.-8A	P.H.S.	1/12/57	12/16/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/12/58	12/19/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 6/59	6/19/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	St. Louis Div. of Smoke Reg.	1/ 1/56	4/30/59	1	3 hr.	Cont.	59	72	S-7	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MISSOURI

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Shannon Missouri State Forest (N.U.)	Suspended Particulate	Mo. S.H.D., State Conservation									
	N.A.S.N.-8	Comm., &	8/26/57	12/24/57	1	24 hr.	1/ 2 wk.	63	82	M-25	
	N.A.S.N.-5	U.S.D.H.E.W.,	1/12/58	12/31/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A	P.H.S.	1/17/59	6/23/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: MONTANA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Glacier											
Glacier Nat'l. Park (N.U.)	Suspended Particulate	Nat'l. Park Serv., U.S.D.H.E.W.,									
	N.A.S.N.-2	P.H.S.	1/15/58	12/20/58	1	24 hr.	1/ 2 wk.	63	82	N-5	
	N.A.S.N.-2A		1/14/59	6/28/59	1	24 hr.	1/ 2 wk.	69		N-3	
Lewis & Clark											
Helena	Suspended Particulate	Mont. S.B.H., U.S.D.H.E.W.,									
	N.A.S.N.-8A	P.H.S.	1/ 5/57	12/24/57	1	24 hr.	1/ 2 wk.	63	82	M-28	
	N.A.S.N.-12		1/26/58	12/30/58	1	24 hr.	1/ 2 wk.	69			
	N.A.S.N.-2A		1/14/59	6/25/59	1	24 hr.	1/ 2 wk.			N-3	
See Note A											A

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: MONTANA

A. Samples have been taken at Great Falls, Anaconda, Missoula, Ramsey and Billings for suspended particulates, (total weight, benzene solubles, and metals) sulfur dioxide, fluorides and other sample categories at infrequent intervals of one day duration. Work was done by the Montana State Board of Health (Agency M-28) during 1957, 1958, and 1959.

STATE: NEBRASKA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Douglas											
Omaha	Suspended Particulate	Omaha City Smoke Abatement Div. &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	1/ 4/57	12/23/57	1	24 hr.	1/ 2 wk.	63	82	O-8	
	N.A.S.N.-12	P.H.S.	1/ 4/58	12/16/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 5/59	6/21/59	1	24 hr.	1/ 2 wk.				
Lancaster											
Lincoln	Suspended Particulate	Lincoln-Lancaster C.H.D., &									
	N.A.S.N.-9A	U.S.D.H.E.W., P.H.S.	1/ 4/57	12/20/57	1	24 hr.	1/ 2 wk.	63 69	82	L-5 N-3	
Thomas											
Nebraska Nat'l. Forest (N.U.)	Suspended Particulate	U.S. Forest Service, &									
	N.A.S.N.-8	U.S.D.H.E.W.,	9/17/57	12/29/57	1	24 hr.	1/ 2 wk.	63	82	U-4	
	N.A.S.N.-2	P.H.S.	1/10/58	12/30/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/14/59	6/17/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEVADA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Clark											
Las Vegas	Suspended Particulate	Clark C.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-8A	P.H.S.	1/ 1/57	12/30/57	1	24 hr.	1/ 2 wk.	63	82	C-19	
	N.A.S.N.-12		1/ 9/58	12/31/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 9/59	6/24/59	1	24 hr.	1/ 2 wk.				
White Pine											
Lehman Caves Nat'l. Monument (N.U.)	Suspended Particulate	Nat'l. Park Service, &									
	N.A.S.N.-2	U.S.D.H.E.W.,	3/18/58	12/19/58	1	24 hr.	1/ 2 wk.	63	82	L-4	
	N.A.S.N.-2A	P.H.S.	1/ 2/59	6/ 8/59	1	24 hr.	1/ 2 wk.	69		N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW HAMPSHIRE

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Coos											
Berlin	Sulfur Dioxide	New Hampshire S.H.D.	10/29/58	11/ 1/58	2	2 hr.	-------	37	81	N-16	
Coos											
White Mountain Nat'l. Forest (N.U.)	Suspended Particulate N.A.S.N.-2A	New Hampshire S.H.D., U.S. Wildlife Service & U.S.D.H.E.W., P.H.S.	1/14/59	6/21/59	1	24 hr.	1/ 2 wk.	63 69	82	N-16 U-3 N-3	
Hillsboro											
Manchester	Suspended Particulate	Manchester City H.D., &									
	N.A.S.N.-3A	U.S.D.H.E.W.,	2/13/57	12/30/57	1	24 hr.	1/ 2 wk.	63	82		
	N.A.S.N.-5	P.H.S.	1/11/58	12/19/58	1	24 hr.	1/ 2 wk.	69		M-5	
	N.A.S.N.-2A		1/26/59	12/30/59	1	24 hr.	1/ 2 wk.			N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW JERSEY

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Atlantic											
Atlantic City	Suspended Particulate N.A.S.N.-10	New Jersey S.H.D. U.S.D.H.E.W., P.H.S.	1/ 3/58	12/30/58	1	24 hr.	1/ 2 wk.	63 69	82	N-19 N-3	
Camden											
Camden	Suspended Particulate N.A.S.N.-11	Camden City Bureau of Fire, & U.S.D.H.E.W., P.H.S.	1/ 4/56	5/25/56	1	24 hr.	3-4/ mo.	63	82	C-4	
	N.A.S.N.-8A		1/ 7/57	12/24/57	1	24 hr.	1/ 2 wk.	69		N-3	
Cape May											
Cape May (N.U.)	Suspended Particulate N.A.S.N.-2	U.S.C.G., & U.S.D.H.E.W., P.H.S.	1/12/58	12/24/58	1	24 hr.	1/ 2 wk.	63	82	U-1	
	N.A.S.N.-2A		1/13/59	6/26/59	1	24 hr.	1/ 2 wk.	69		N-3	
Essex											
East Orange	Suspended Particulate N.A.S.N.-8A	Veterans Hospital & U.S.D.H.E.W., P.H.S.	1/ 4/57	12/24/57	1	24 hr.	1/ 2 wk.	63 69	82	V-2 N-3	
Essex											
Newark	Suspended Particulate N.A.S.N.-8A	Newark City H.D. & U.S.D.H.E.W., P.H.S.	1/ 5/57	10/ 8/57	1	24 hr.	1/ 2 wk.	63	82	N-13	
	N.A.S.N.-13		2/ 9/58	12/29/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-10A		1/ 3/59	6/27/59	1	24 hr.	1/ 2 wk.				
Gloucester											
Paulsboro	Suspended Particulate N.A.S.N.-11	New Jersey S.H.D. & U.S.D.H.E.W., P.H.S.	1/ 3/56	5/26/56	1	24 hr.	3-4/ mo.	63 69	82	N-19 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW JERSEY

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Hudson Bayonne	Suspended Particulate N.A.S.N.-2A	Bayonne City H.D. & U.S.D.H.E.W., P.H.S.	1/20/59	6/24/59	1	24 hr.	1/ 2 wk.	63 69	82	B-4 N-3	
Hudson Jersey City	Suspended Particulate N.A.S.N.-11 N.A.S.N.-9A N.A.S.N.-10A	Jersey City H.D. & U.S.D.H.E.W., P.H.S.	1/ 3/56 1/ 7/57 1/ 9/59	5/26/56 12/24/57 6/22/59	1 1 1	24 hr. 24 hr. 24 hr.	3-4/ mo. 1/ 2 wk. 1/ 2 wk.	63 69	82	J-5 N-3	
Mercer Trenton	Suspended Particulate N.A.S.N.-11	New Jersey S.H.D. & U.S.D.H.E.W., P.H.S.	1/ 3/56	5/26/56	1	24 hr.	2-4/ mo.	63 69	82	N-19 N-3	
Middlesex Carteret	Ozone	Interstate Sanitation Commission	Fall/57	--/--/--	1	1 wk.	-------	50	63	I-6 S-39	
Middlesex Perth Amboy	Suspended Particulate N.A.S.N.-11	New Jersey S.H.D. U.S.D.H.E.W., P.H.S.	1/ 3/56	5/26/56	1	24 hr.	3-4/ mo.	63 69	82	N-19 N-3	
Ocean Lakehurst	Suspended Particulate N.A.S.N.-11	New Jersey S.H.D. & U.S.D.H.E.W., P.H.S.	1/11/56	5/26/56	1	24 hr.	3-4/ mo.	69 63	82	N-3 N-19	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE NEW JERSEY

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Passaic Paterson	Suspended Particulate N.A.S.N.-2A	Paterson City B. H., & U.S.D.H.E.W., P.H.S.	1/ 6/59	6/30/59	1	24 hr.	1/ 2 wk.	63 69	82	P-3 N-3	
Union Elizabeth	Suspended Particulate N.A.S.N.-11 N.A.S.N.-10	Elizabeth City B.H., & U.S.D.H.E.W., P.H.S.	1/11/56 1/28/58	5/18/56 12/26/58	1 1	24 hr. 24 hr.	2-4/ mo. 1/ 2 wk.	63 69	82	E-4 N-3	
Statewide Survey of 21 cities	Suspended Particulate Soiling	New Jersey S.H.D.	2/ /56	1/ /57	21	2 hr.	Cont.	59	72	N-19	

Note: The soiling survey was conducted in the following cities: Atlantic City, Boonton, Burlington, Camden, Elizabeth, Jersey City, Lakehurst, Lakewood, Madison, Middlesex, Morristown, Newark, New Brunswick, Paterson, Phillipsburg, Plainfield, Princeton, Red Bank, Sparta, Trenton, and Union. Ref.: "Statewide Air Pollution Survey-Smoke Index," Public Health News, August, 1958, New Jersey State Department of Health.

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW MEXICO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Bernalillo											
Albuquerque	Suspended Particulate	Albuquerque City H.D., &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	1/15/57	12/19/57	1	24 hr.	1/ 2 wk.	63	82	A-7	
	N.A.S.N.-12	P.H.S.	1/10/58	12/14/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 3/59	6/19/59	1	24 hr.	1/ 2 wk.				
Colfax											
Philmont Scout Ranch (N.U.)	Suspended Particulate										
	N.A.S.N.-2	B.S.A., &	7/12/58	12/23/58	1	24 hr.	1/ 2 wk.	63	82	P-14	
	N.A.S.N.-2A	U.S.D.H.E.W., P.H.S.	1/13/59	6/26/59	1	24 hr.	1/ 2 wk.	69		N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW YORK

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Albany Albany	Suspended Particulate N.A.S.N.-2	Albany C.H.D., & U.S.D.H.E.W., P.H.S.	2/11/58	5/28/58	1	24 hr.	1/ 2 wk.	63 69	82	A-6 N-3	A
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58 2/ 1/59	6/30/59 6/30/59	1 2	24 hr. 24 hr.	1/ day 1/ day	63 69	84	N-22	B
Broome Binghamton	Suspended Particulate N.A.S.N.-108	Binghamton Bureau of Health & U.S.D.H.E.W., P.H.S.	1/13/57	12/23/57	1	24 hr.	1/ 2 wk.	63 69	82	B-7 N-3	A
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63	84	N-22	B

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW YORK

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Chemung											
Elmira	Suspended Particulate	N.Y.S.A.P.C.B.									
	Total Weight		8/ 1/58	6/30/59	1	24 hr.	1/ day	63	84	N-22	B
	Benzene Sol.							69			
	Nitrates										
	Sulfates										
	pH										
Erie											
Buffalo	Suspended Particulate	Buffalo Dept. of Public Works, &									
	N.A.S.N.-10B	U.S.D.H.E.W.,	1/11/57	12/ 2/57	1	24 hr.	1/ 2 wk.	63	82	B-14	A
	N.A.S.N.-3	P.H.S.	3/22/58	7/ 1/58	1	24 hr.	1/ 2 wk.	69		N-3	
	Suspended Particulate	N.Y.S.A.P.C.B.									
	Total Weight		8/ 1/58	6/30/59	1	24 hr.	1/ day	63	84	N-22	B
	Benzene Sol.		5/--/58	6/30/59	5	24 hr.	1/ wk.	69			
	Nitrates										
	Sulfates										
	pH										
Jefferson											
Cape Vincent (N.U.)	Suspended Particulate	U.S.C.G., & U.S.D.H.E.W.,									
	N.A.S.N.-2	P.H.S.	6/ 6/58	12/14/58	1	24 hr.	1/ 2 wk.	63	82	U-1	
	N.A.S.N.-2A		1/ 2/59	5/20/59	1	24 hr.	1/ 2 wk.	69		N-3	
Monroe											
Rochester	Dustfall	Rochester Dept.									
	Total Weight	of Public Safety	1/ 1/56	6/30/59	1	30 days	12/ year	8	--	R-9	
	Ash										
	Combustibles										

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW YORK

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Monroe											
Rochester	Suspended Particulate N.A.S.N.-2	Rochester City H.D., & U.S.D.H.E.W., P.H.S.	1/13/58	7/25/58	1	24 hr.	1/ 2 wk.	63 69	82	R-8 N-3	A
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B
Nassau											
Glen Cove	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B
New York											
New York (See Note C)	Aldehydes	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	1-2	30 min.	1-24/ day	35	8	N-21	
	Ammonia	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	1	30 min.	1/ day	35	10	N-21	
	Carbon Monoxide	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	3 rov'g.	Var.	Var.	25 44	16 18	N-21	

* A - Sampling Equipment; B - Analytical Method C - Agencies & References

STATE: NEW YORK

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
New York											
New York (See Note C)	Chlorides	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	1	1 hr.	1/ day	35	19	N-21	
	Dustfall	N.Y. City									
	Total Weight	D.A.P.C.	1/ 1/56	6/30/59	28-32	30 days	12/ year	2	--	N-21	
	Insolubles								4		
	Solubles								10		
	Ash								19		
	Acidity								47		
	Ammonium								59		
	Chlorides								74		
	Nitrates								--		
	Phosphates								68		
	Sulfates								14		
	Tar										
	pH										
	Na, K, Ca, Mn										
	Hydrocarbons	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	2	Cont.	Cont.	44	40	N-21	
	Hydrogen Sulfide	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	1	30 min.	1/ day	35	41	N-21	
	Nitrogen Dioxide	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	1 plus 1 rov'g	1 hr.	1-24/ day	31	50	N-21	
	Oxidant	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	1-2	1 hr.	1-24/ day	31	60	N-21	E
	Sulfur Dioxide	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	5	Var.	Var.	35	81	N-21	D
					5	Var.	Var.	38	--		F
					5	Var.	Var.	27	79		G

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW YORK

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
New York New York	Suspended Particulate N.A.S.N.-7 N.A.S.N.-13 N.A.S.N.-5	N.Y. City D.A.P.C., & U.S.D.H.E.W., P.H.S.	1/ 3/56 1/ 6/57 1/14/58	10/17/56 12/27/57 7/17/58	1 1 1	24 hr. 24 hr. 24 hr.	2-4/ mo. 1/ 2 wk. 1/ 2 wk.	63 69	82	N-21 N-3	A
	Suspended Particulate Total Weight Ash Tar Soiling Cu, Co, V, Be, Sn, Cr, Pb, Bi, Sr, Co, Mo, Ni, B, Ge, Zn, Mn	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	2-3	1 hr.	1/ day	66 69	82	N-21	
	Suspended Particulate Total Weight	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	1	24 hr.	5-6/ wk.	66 69	--	N-21	
	Suspended Particulate Soiling	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	3-6	2 hr.	Cont.	59	72	N-21	
	Suspended Particulate Particle Count Particle Size	N.Y. City D.A.P.C.	1/ 1/56	6/30/59	1	---	1/ day	64	65	N-21	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW YORK

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
New York											
New York	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B
Oneida											
Utica	Suspended Particulate N.A.S.N.-10B	Utica City H.D., & U.S.D.H.E.W., P.H.S.	1/10/57	12/19/57	1	24 hr.	1/ 2 wk.	63 69	82	U-7 N-3	A
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B
Onandaga											
Syracuse	Suspended Particulate N.A.S.N.-10B	Syracuse Dept. of Engr. & U.S.D.H.E.W., P.H.S.	1/12/57	12/22/57	1	24 hr.	1/ 2 wk	63 69	82	S-43 N-3	A
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW YORK

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Renesselaer Troy	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B
St. Lawrence Massena	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B
Schenectady Schenectady	Suspended Particulate N.A.S.N.-108	Schenectady City H.D., & U.S.D.H.E.W., P.H.S.	1/28/57	12/10/57	1	24 hr.	1/ 2 wk.	63 69	82	S-20 N-3	A
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NEW YORK

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Westchester New Rochelle	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulphates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B
Westchester Yonkers	Suspended Particulate N.A.S.N.-2	Yonkers City H.D. & U.S.D.H.E.W., P.H.S.	5/14/58	6/28/58	1	24 hr.	1/ 2 wk.	63 69	82	Y-3 N-3	A
	Suspended Particulate Total Weight Benzene Sol. Nitrates Sulfates pH	N.Y.S.A.P.C.B.	8/ 1/58	6/30/59	1	24 hr.	1/ day	63 69	84	N-22	B
Wyoming Attica	Suspended Particulate Soiling	N.Y.S.A.P.C.B.	12/ 9/58	1/12/59	3	2 hr.	5/ day	59	72	N-22	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: NEW YORK

A. New York cities discontinued participation in the National Air Sampling Network on August 1, 1958, when they became a part of the New York State Network. They continued to participate in the latter program until it was suspended in August, 1959, at which time some resumed participation in the National Network.

B. Total weight and benzene solubles were determined on every sample, while pH, nitrates, and sulfates were determined on every eighth sample.

C. New York is a complex of New York, Kings, Queens, Bronx, and Richmond.

D. Two samples manually per day.

E. Also by rubber cracking for very short periods of time.

F. Four to five sequential samples - laboratory and field.

G. Two conductivity - one in field, one in laboratory.

STATE: NORTH CAROLINA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Buncombe Asheville	Suspended Particulate N.A.S.N.-10	Buncombe C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 9/58	12/28/58	1	24 hr.	1/ 2 wk.	63 69	82	B-15 N-3	
Dare Cape Hatteras (N.C.)	Suspended Particulate N.A.S.N.-8 N.A.S.N.-2 N.A.S.N.-2A	Nat'l. Park Service, & U.S.D.H.E.W., P.H.S.	7/ 7/57 1/14/58 1/10/59	12/13/57 12/25/58 6/ 6/59	1 1 1	24 hr. 24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk. 1/ 2 wk.	63 69	82	C-8 N-3	
Forsyth Winston-Salem	Suspended Particulate N.A.S.N.-10B	Forsyth C.H.D., & U.S.D.H.E.W., P.H.S.	1/12/57	12/24/58	1	24 hr.	1/ 2 wk.	63 69	82	F-5 N-3	
Guilford Greensboro	Suspended Particulate N.A.S.N.-10	Guilford C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 6/58	12/24/58	1	24 hr.	1/ 2 wk.	63 69	82	C-12 N-3	
Mecklenburg Charlotte	Suspended Particulate N.A.S.N.-3A N.A.S.N.-5 N.A.S.N.-2A	Charlotte City H.D., & U.S.D.H.E.W., P.H.S.	1/13/57 1/ 6/59 1/ 6/59	12/30/57 6/29/59 6/29/59	1 1 1	24 hr. 24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk. 1/ 2 wk.	63 69	82	C-12 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NORTH CAROLINA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Mecklenburg Charlotte	Suspended Particulate Soiling	Charlotte D.A.P.C.	2/--/56	6/30/59	1	2 hr.	Cont.	59	72	C-11	
Wake Raleigh	Suspended Particulate N.A.S.N.-10A	N.C.S.H.D., & U.S.D.H.E.W., P.H.S.	1/12/59	6/17/59	1	24 hr.	1/ 2 wk.	63 69	82	N-25 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: NORTH DAKOTA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Burleigh											
Bismarck	Suspended Particulate	Bismarck H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-3A	P.H.S.	1/ 7/57	12/11/57	1	24 hr.	1/ 2 wk.	63	82	B-9	
	N.A.S.N.-5		1/ 3/58	12/13/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/25/59	6/23/59	1	24 hr.	1/ 2 wk.				
Ward											
Upper Souris Nat'l. Wildlife Refuge (N.U.)	Suspended Particulate	U.S. Fish & Wildlife Service, &									
	N.A.S.N.-8	U.S.D.H.E.W.,	10/10/57	12/31/57	1	24 hr.	1/ 2 wk.	63	82	U-2	
	N.A.S.N.-5	P.H.S.	1/16/58	12/28/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 8/59	6/ 2/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: OHIO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Butler											
Hamilton	Suspended Particulate N.A.S.N.-10A	Hamilton-Butler C.H.D., & U.S.D.H.E.W., P.H.S.	1/27/59	6/23/59	1	24 hr.	1/ 2 wk.	63 69	82	H-1 N-3	
Clark											
Springfield	Suspended Particulate N.A.S.N.-10	Springfield City H.D., & U.S.D.H.E.W., P.H.S.	1/14/58	12/30/58	1	24 hr.	1/ 2 wk.	63 69	82	S-36 N-3	
Cuyahoga											
Cleveland	Acid Gases	Cleveland D.S.A.P.C.	1/ /56	6/ /59	1	20 min.	24/ day	38	79	C-20	
			2/ /59	6/ /59	1	55 min.	24/ day				
			1/ /56	9/ /57	3	20 min.	24/ day				
			10/ /57	1/ /58	1	20 min.	24/ day			G-13	
	Dustfall	Cleveland									
	Total Weight	D.S.A.P.C.	1/ /56	6/ /59	22	30 days	12/ year	2	--	C-20	C
	Ash		10/ /57	1/ /58	1	30 days	1/ mo.			G-13	
	Carbon								76		
	Sulfates								45		
	Iron Oxide										
	Suspended Particulate	Cleveland D.S.A.P.C., &									
	N.A.S.N.-3A	U.S.D.H.E.W.,	1/ 3/57	12/26/57	1	24 hr.	1/ 2 wk.	63	82	C-20	
	N.A.S.N.-5	P.H.S.	1/ 9/58	12/31/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/15/59	6/29/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: OHIO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Cuyahoga											
Cleveland	Suspended Particulate	Cleveland D.S.A.P.C.									
	Soiling		1/--/56	6/--/59	3	30 min.	Cont.	59	73	C-20	
			10/--/57	1/--/58	1	30 min.	Cont.			G-13	
			1/--/56	3/--/58	1	30 min.	Cont.				
Erie											
Sandusky	Dustfall Total Weight Ash	Sandusky-Erie C.H.D.	9/ 1/56	6/30/59	16	30 days	12/ year	15	--	S-12	
	Suspended Particulate	Sandusky-Erie C.H.D.									
	Soiling		6/ 6/56	6/ 1/58	1	2 hr.	Cont.	59	72	S-12	
Franklin											
Columbus	Dustfall Total Weight Insolubles Solubles Volatiles Chlorides pH	Columbus D.S.R.I.	1/ 1/56	6/30/59	24-30	30 days	12/ year	7	--	C-24	
	Nitrogen Dioxide	Columbus D.S.R.I.	4/ 1/59	6/30/59	rov'g.	1 min. - 24 hr.	--	34 36	--	C-24	A
	Sulfur Dioxide	Columbus D.S.R.I.	4/ 1/59	6/30/59	rov'g.	1 min. - 24 hr.	--	34 36	--	C-24	A

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STATE: OHIO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Franklin Columbus	Suspended Particulate N.A.S.N.-8A	Columbus D.S.R.I. U.S.D.H.E.W., P.H.S.	1/25/57	12/29/57	1	24 hr.	1/ 2 wk.	63	82	C-24	
	N.A.S.N.-12		1/ 5/58	12/28/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 5/59	6/8/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	Columbus D.S.R.I.	1/ 1/56	6/30/59	1-2	2 hr.	Cont.	59	72		
Hamilton Cincinnati	Carbon Monoxide	Kettering Lab.	1/ 1/57	6/30/59	3	10-30 min.	Var.	24	16	K-8	
	Dustfall Total Weight Ash Combustibles	Cincinnati B.A.P.C.H.I.	1/ 1/56	6/30/59	20	30 days	12/ year	16	--	C-16	
	Nitric Oxide	Kettering Lab.	6/ 1/58	6/30/59	3	Cont.	Cont.	--	--	K-8	
	Nitrogen Dioxide	Kettering Lab.	1/ 1/57	6/30/59	3	Cont.	Cont.	--	53	K-8	
	Oxidant	Kettering Lab.	1/ 1/57	6/30/59	3	Cont.	Cont.	--	60	K-8	
	Sulfur Dioxide	Kettering Lab.	1/ 1/57	6/30/59	3	2 hr.	Cont.	53	79	K-8	
	Sulfur Dioxide	Cincinnati B.A.P.C.H.I.	1/ 1/56	6/30/59	1 rov'g	2 hr.	Var.	53	79	C-16	

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STATE: OHIO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Hamilton Cincinnati	Suspended Particulate N.A.S.N.-7	Cincinnati B.A.P.C.H.I., & U.S.D.H.E.W., P.H.S.	1/ 4/56	12/26/56	1	24 hr.	3-5/ mo.	63	82	C-16	D
	N.A.S.N.-8A		1/10/57	12/20/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-12		1/17/58	12/21/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/13/59	6/22/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	Cincinnati B.A.P.C.H.I.	1/ 1/57	6/30/59	3	3 hr.	Cont.	59	73	C-16	
	Suspended Particulate Soiling Lead	Kettering Lab.	1/ 1/57	6/30/59	3	1 hr.	Cont.	59	72	K-8	
	Suspended Particulate 20 - 25 Sub-Categories	Kettering Lab.	1/ 1/57	6/30/59	3	24 hr.	1/ day	63	--	K-8	B
Hamilton St. Bernard	Hydrogen Sulfide	U.S.D.H.E.W., P.H.S.	1/16/56	3/15/56	1	6 hr.	Cont.	21	42	A-22 C-25	
	Nitrogen Oxides	U.S.D.H.E.W., P.H.S.	1/16/56	3/15/56	1	--	Var.	34	49	A-22 C-25	
	Sulfur Dioxide	U.S.D.H.E.W., P.H.S.	1/16/56	3/15/56	1	--	Var.	34	--	A-22	
			1/16/56	3/15/56	1	Cont.	Cont.	56	79	C-25	

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STATE: OHIO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Hamilton											
St. Bernard	Suspended Particulate Total Weight Benzene Sol. Chlorides Nitrates Sulfates	U.S.D.H.E.W., P.H.S.	1/16/56	3/15/56	1	24 hr.	1/ day	63 69	82	A-22 C-25	
	Suspended Particulate Soiling	U.S.D.H.E.W., P.H.S.	1/16/56	3/15/56	1	3 hr.	Cont.	59	72	A-22 C-25	
Lorain											
Lorain	Hydrogen Sulfide	Lorain City	1/ 1/56	6/30/59	1	1 hr.	Cont.	21	42	L-7	
	Suspended Particulate N.A.S.N.-10B	Lorain City, & U.S.D.H.E.W., P.H.S.	1/10/57	12/30/57	1	24 hr.	1/ 2 wk	63 69	82	L-7 N-3	
Lucas											
Toledo	Suspended Particulate N.A.S.N.-10B N.A.S.N.-2A	Toledo Dept. Public Safety, & U.S.D.H.E.W., P.H.S.	1/ 5/57 1/14/59	12/30/57 6/15/59	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	T-8 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: OHIO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Mahoning											
Youngstown	Suspended Particulate	Youngstown Div. of Engr., &									
	N.A.S.N.-1	U.S.D.H.E.W.,	7/23/56	12/26/56	1	24 hr.	2-6/ mo.	63	82	Y-5	
	N.A.S.N.-5A	P.H.S.	1/ 6/57	12/30/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-12		1/ 4/58	12/18/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 2/59	6/28/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate	Youngstown Div. of Engr.									
	Total Weight		1/ 1/56	6/30/59	1 rov'g. at 15 station	4 hr.	--	62	--	Y-5	
Montgomery											
Dayton	Carbon Monoxide	Dayton B.A.P.C.	6/ 2/59	6/ 8/59	1	2 1/2 min.	6/ day	24	16	D-6	
	Dustfall										
	Total Weight	Dayton B.A.P.C.	10/ 1/56 5/ 1/59	11/30/57 6/30/59	20	30 days	12/ year	5	--	D-6	
	Ozone	Dayton B.A.P.C.	5/ 1/59	6/30/59	1	8 hr.	1/ day	48	62	D-6	
	Suspended Particulate	Dayton B.A.P.C., & U.S.D.H.E.W.,									
	N.A.S.N.-10	P.H.S.	1/ 7/58	12/ 6/58	1	24 hr.	1/ 2 wk.	63	82	D-6	
	N.A.S.N.-2A		1/15/59	6/26/59	1	24 hr.	1/ 2 wk.	69		N-3	
	Suspended Particulate	Dayton B.A.P.C.									
	Soiling		5/ 1/59	6/20/59	1	8 hr.	Cont.	59	72	D-6	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: OHIO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Muskingum											
Zanesville	Dustfall Total Weight	Zanesville Div. Smoke Reg.	1/ 1/56	12/30/56	4	30 days	12/ year	1	--	Z-1	
Ottawa											
Perry Nat'l. Monument (N.U.)	Suspended Particulate N.A.S.N.-8	Nat'l. Park Service, & U.S.D.H.E.W., P.H.S.	10/23/57	12/27/57	1	24 hr.	1/ 2 wk.	63	82	N-4	
	N.A.S.N.-2		1/ 9/58	11/ 7/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/25/59	6/15/59	1	24 hr.	1/ 2 wk.				
Summit											
Akron	Dustfall Total Weight Insolubles	Akron City H.D.	1/ 1/56	6/30/59	12	30 days	12/ year	8	--	A-2	
	Suspended Particulate N.A.S.N.-2	Akron City H.D., & U.S.D.H.E.W., P.H.S.	1/13/58	12/26/58	1	24 hr.	1/ 2 wk.	63 69	82	A-2 N-3	
	Suspended Particulate Soiling	Akron City H.D.	3/11/58	6/30/59	1	2 hr.	Cont.	59	72	A-2	
Stark											
Canton	Suspended Particulate N.A.S.N.-9A	Canton City H.D. & U.S.D.H.E.W., P.H.S.	1/ 5/57	12/27/57	1	24 hr.	1/ 2 wk.	63	82	C-6	
	N.A.S.N.-10A		1/14/59	6/23/59	1	24 hr.	1/ 2 wk.	69		N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: OHIO

A. Regularly scheduled locations.

B. 20 - 25 ions including sulfate, nitrate, chloride, fluoride, Ni, Mn, Cr, Pb, Vi, Ti, and various organic groups. Laboratory methods include spectrography, gas chromatography, x-ray diffraction, et.al.

C. Thirty per cent of stations in residential areas.

D. During a two-year period beginning September 1, 1957, special samples were collected at five stations for a cancer study under the auspices of the National Cancer Institute. Samples were collected using high-volume samplers with 8" x 10" glass fiber filters and one low-volume sampler, 12 cfm positive displacement pump, with an 8" x 10" millipore filter.

The high-volume samples were collected at the rate of 3 per week per station with sampling periods of from 48 to 72 hours. Step-down voltage transformers were used to reduce the sampling rate to obtain the longer sampling periods. The low-volume samplers were operated continuously until the pressure drop across the filter exceeded 5" Hg., or at the end of 30 days, whichever occurred first.

The high-volume samples were analyzed for total weight, benzene solubles, and radioactivity. The benzene solubles were fractionated into water soluble, bases, acids, and neutrals. The neutral fraction was in turn separated into aromatic hydrocarbons, aliphatic hydrocarbons, and oxygenated components. The low-volume samples were weighed and the collected material mechanically removed for use in animal experiments. Data from this study are available from the Robert A. Taft Sanitary Engineering Center (Agency C-25 or N-3).

STATE: OKLAHOMA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Comanche											
Lawton (N.U.)	Suspended Particulate N.A.S.N.-2	U.S.D.H.E.W., P.H.S.	9/ 7/58	12/10/58	1	24 hr.	1/ 2 wk	63 69	82	N-3	
Oklahoma											
Oklahoma City	Suspended Particulate N.A.S.N.-10	Okla. City-C.H.D. & U.S.D.H.E.W., P.H.S.	1/ 5/58	12/26/58	1	24 hr.	1/ 2 wk.	63 69	82	O-3 N-3	
Tulsa											
Tulsa	Corrosion	Okla. S.H.D., Tulsa City-C.H.D. U.S.D.H.E.W., P.H.S.	7/23/57	12/ 4/58	21	3 mo.	4/ year	78	23	O-4 T-12 N-3	
	Dustfall Total Weight Metals	Oklahoma S.H.D. Tulsa City-C.H.D. U.S.D.H.E.W., P.H.S.	7/23/57	12/ 4/58	21	3 mo.	4/ year	10	--	O-4 T-12 N-3	
	Suspended Particulate	Okla. S.H.D., Tulsa City-C.H.D.									
	N.A.S.N.-3A	U.S.D.H.E.W., P.H.S.	1/ 5/57	12/27/57	1	24 hr.	1/ 2 wk.	63	82	O-4	
	N.A.S.N.-5		1/ 6/58	12/ 8/58	1	24 hr.	1/ 2 wk.	69		T-12	
	N.A.S.N.-2A		1/10/59	6/17/59	1	24 hr.	1/ 2 wk.			N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: OREGON

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Curry											
Cape Blanco (N.U.)	Suspended Particulate	U.S.C.G., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-5		2/28/58	12/22/58	1	24 hr.	1/ 2 wk.	63	82	C-7	
	N.A.S.N.-2A		1/ 5/59	6/28/59	1	24 hr.	1/ 2 wk.	69		N-3	
Lane											
Eugene	Carbon Monoxide	Oregon S.A.P.S.	6/22/59	6/24/59	1	--	2/ day	24	16	0-7	
	Dustfall	Oregon S.A.P.S.									
	Total Weight		1/ 6/56	6/30/59	12	30 days	12/ year	17	--	0-7	
	Volatiles										
	Non-volatiles										
	Nitric Oxide	Oregon S.A.P.S.	6/22/59	6/24/59	1	30 min.	Var.	31	49	0-7	
	Nitrogen Dioxide	Oregon S.A.P.S.	6/22/59	6/24/59	1	30 min.	Var.	31	49	0-7	
	Oxidant	Oregon S.A.P.S.	6/22/59	6/24/59	1	10 min.	Var.	36	59	0-7	
	Sulfur Dioxide	Oregon S.A.P.S.	6/22/59	6/24/59	1	10 min.	Var.	36	78	0-7	
	Suspended Particulate	Oregon S.A.P.S.									
	Total Weight		4/ 4/56	6/24/59	1-4	--	1/ day	63 67	--	0-7	
Marion											
Salem	Carbon Monoxide	Oregon S.A.P.S.	6/25/59	6/26/59	1	--	3/ day	24	16	0-7	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: OREGON

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Marion Salem	Dustfall Total Weight Volatiles Non-volatiles	Oregon S.A.P.S.	4/ 3/59	6/12/59	10	30 days	12/ year	17	--	0-7	
	Nitric Oxide	Oregon S.A.P.S.	6/25/59	6/26/59	1	30 min.	5/ day	31	49	0-7	
	Nitrogen Dioxide	Oregon S.A.P.S.	6/25/59	6/26/59	1	30 min.	5/ day	31	49	0-7	
	Oxidant	Oregon S.A.P.S.	6/25/59	6/26/59	1	10 min.	5/ day	36	59	0-7	
	Sulfur Dioxide	Oregon S.A.P.S.	2/26/59	6/26/59	1	1-10 min.	3/ day	36	78	0-7	
Multnomah Portland	Carbon Monoxide	Oregon S.A.P.S.	10/23/58 1/27/59	10/29/58 1/30/59	2 1	-- --	8/ day 10/ day	24	16	0-7	
	Dustfall Total Weight Volatiles Non-volatiles	Oregon S.A.P.S.	1/ 1/56	6/30/59	8	30 days	12/ year	17	--	0-7	
	Fluorides	Oregon S.A.P.S.	4/11/56 7/ 1/56	5/26/56 7/ 6/56	1 1	6 hr. 6 hr.	Var. Var.	38	30 35	0-7	
	Nitric Oxide	Oregon S.A.P.S.	10/23/58 1/27/59	10/29/58 1/30/59	2 1	10 min. 10 min.	8/ day 10/day	31	49	0-7	
	Nitrogen Dioxide	Oregon S.A.P.S.	10/23/58 1/27/59	10/29/58 1/30/59	2 1	10 min. 10 min.	8/ day 10/ day	31	49	0-7	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: OREGON

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Multnomah											
Portland	Oxidant	Oregon S.A.P.S.	10/23/58	10/29/58	2	10 min.	8/ day	36	59	0-7	
			1/27/59	1/30/59	1	10 min.	10/day				
	Sulfur Dioxide	Oregon S.A.P.S.	10/23/58	10/29/58	2	10 min.	8/ day	36	78	0-7	
			1/27/59	1/30/59	1	10 min.	10/day				
	Suspended Particulate	Oregon S.A.P.S., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-6		1/25/56	5/17/56	1	24 hr.	1-5/ mo.	63	82	0-7	
	N.A.S.N.-6		1/12/56	10/16/56	1	24 hr.	1-5/ mo.	69		N-3	
	N.A.S.N.-8A		1/ 9/57	12/16/57	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-5		1/14/58	12/20/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 5/59	6/21/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Total Weight	Oregon S.A.P.S.	1/ 1/56	6/30/59	2	24 hr.	1/ day	63 67	--	0-7	
	Suspended Particulate Soiling	Oregon S.A.P.S.	11/21/58	6/30/59	1	2 hr.	Cont.	59	72	0-7	
Wasco											
The Dalles	Fluorides	Oregon S.A.P.S.	8/24/56	11/ 8/56	1	6 hr.	4/ day	38	30	0-7	
			3/ 6/57	4/15/57	1	6 hr.	4/ day		35		
			7/16/57	10/22/57	1	6 hr.	4/ day				
			2/26/59	5/ 5/59	1	6 hr.	4/ day				
			10/25/57	11/ 6/57	1	6 hr.	4/ day				
			8/21/58	10/13/58	1	6 hr.	4/ day				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: PENNSYLVANIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Allegheny											
Avalon	Dustfall Insolubles Solubles	Pa. S.H.D.	2/ 4/59	5/ 7/59	7	30 days	1/ mo.	2	--	P-5	B L
	Hydrogen Sulfide	Pa. S.H.D.	6/ 1/59	6/15/59	1	2 hr.	Cont.	21	42	P-5	C
	Suspended Particulate Manganese	Pa. S.H.D.	2/ 4/59	5/22/59	4	48 hr.	2/ wk.	69		P-5	B
	Suspended Particulate Soiling	Pa. S.H.D.	2/ 4/59	3/27/59	1	2 hr.	Cont.	59	72	P-5	C
Allegheny											
Donora	Sulfur Dioxide	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	7/13/56 8/14/56	7/27/56 8/30/56	2 2	Cont. Cont.	Cont. Cont.	57	80	P-5 C-25 E-10	D
	Suspended Particulate Total Weight Benzene Sol.	Pa. S.H.D., U.S.D.H.E.W., P.H.S.	7/13/56 8/14/56	7/27/56 8/30/56	3 3	24 hr. 24 hr.	1/ day 1/ day	63 69	84	P-5 C-25 E-10	D
	Suspended Particulate Soiling	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	7/13/56 8/14/56	7/27/56 8/30/56	1 1	6 hr. 6 hr.	Cont. Cont.	59	72	P-5 C-25 E-10	D

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: PENNSYLVANIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Allegheny Homestead	Suspended Particulate Total Weight Benzene Sol.	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	7/12/56 8/ 7/56	7/26/56 8/16/56	1 1	24 hr. 24 hr.	1/ day 1/ day	63 69	84	P-5 C-25 E-10	D
Allegheny McKeesport	Suspended Particulate Total Weight Benzene Sol.	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	7/16/56 8/ 7/56	7/26/56 8/22/56	1 1	24 hr. 24 hr.	1/ day 1/ day	63 69	84	P-5 E-10 C-25	D
Allegheny Pittsburgh	Carbon Monoxide	Allegheny C.H.D.	1/--/56	6/--/59	--	--	Var.	24	16	A-8	
	Dustfall Insolubles Solubles pH	Allegheny C.H.D.	1/--/56	6/--/59	14	30 days	12/ year	2	--	A-8	
	Hydrogen Sulfide	Allegheny C.H.D.	4/--/58	6/--/59	1	2 hr.	Cont.	21	42	A-8	
	Hydrogen Sulfide	I.H.F.	2/10/56	5/26/58	1	2 hr.	Cont.	21	42	I-5	E
	Ozone	Allegheny C.H.D.	5/--/59	6/--/59	3	1 wk.	Cont.	50	63	A-8	
	Sulfur Oxides	Allegheny C.H.D.	4/--/59	6/--/59	6	1 mo.	1/ mo.	43	76	A-8	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: PENNSYLVANIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Allegheny											
Pittsburgh	Suspended Particulate	Allegheny C.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-11	P.H.S.	1/ 2/56	12/27/56	1	24 hr.	3-5/ mo.	63	82	A-8	
	N.A.S.N.-8A		2/ 4/57	12/20/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-12		1/10/58	12/24/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/11/59	6/24/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Soiling	Allegheny C.H.D.	1/--/58	6/--/59	5	2 hr.	Cont	59	72	A-8	
	Suspended Particulate Soiling	I.H.F.	1/--/56	6/--/59	1	2 hr.	Cont.	59	72	I-5	E
Beaver											
Ambridge	Dustfall Total Weight	Pa. S.H.D.	9/22/58	10/31/58	4	41 days	--	2	--	P-5	L
	Sulfur Dioxide	Pa. S.H.D.	10/28/58	10/31/58	1	Cont.	Cont.	56	79	P-5	F
	Suspended Particulate Total Weight	Pa. S.H.D.	9/12/58	10/ 9/58	1	48 hr.	3/ wk.	69	--	P-5	F
	Suspended Particulate Soiling	Pa. S.H.D.	9/22/58	10/31/58	1	2 hr.	Cont.	59	72	P-5	F
Berks											
Reading	Suspended Particulate	Pa. S.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-10	P.H.S.	1/29/58	12/30/58	1	24 hr.	1/ 2 wk.	63 69	82	P-5 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: PENNSYLVANIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Bucks Bristol	Suspended Particulate N.A.S.N.-11	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	2/12/56	5/31/56	1	24 hr.	3-4/ mo.	63 69	82	P-5 N-3	
Blair Altoona	Suspended Particulate N.A.S.N.-11 N.A.S.N.-2A	Altoona City H.D., & U.S.D.H.E.W., P.H.S.	2/28/56 1/ 9/59	11/ 1/56 6/23/59	1 1	24 hr. 24 hr.	1-5/ mo. 1/ 2 wk.	63 69	82	A-10 N-3	
Cambria Johnstown	Suspended Particulate N.A.S.N.-9A N.A.S.N.-10A	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	4/29/57 1/11/59	11/19/57 6/23/59	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	P-5 N-3	
Clarion Cook State Forest (N.U.)	Suspended Particulate N.A.S.N.-2 N.A.S.N.-2A	State Forest Service, & U.S.D.H.E.W., P.H.S.	1/ 7/58 1/11/59	12/27/58 6/12/59	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	P-4 N-3	
Dauphin Harrisburg	Suspended Particulate N.A.S.N.-10	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	1/11/58	12/27/58	1	24 hr.	1/ 2 wk.	63 69	82	P-5 N-3	
Dauphin Middletown	Dustfall Total Weight	Pa. S.H.D.	3/ 6/58	4/ 7/58	4	31 days	--	2	--	P-5	G L

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: PENNSYLVANIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Delaware Chester	Suspended Particulate N.A.S.N.-11	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	2/12/56	5/26/56	1	24 hr.	3-4/ mo.	63 69	82	P-5 N-3	
Erie Erie	Suspended Particulate N.A.S.N.-11 N.A.S.N.-2A	Erie B.A.P., & U.S.D.H.E.W., P.H.S.	1/ 2/56 1/10/59	12/27/56 6/29/59	1 1	24 hr. 24 hr.	3-5/ mo. 1/ 2 wk.	63 69	82	E-8 N-3	
Lackawanna Scranton	Suspended Particulate N.A.S.N.-10B N.A.S.N.-2A	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	1/ 4/57 1/ 3/59	12/27/57 6/17/59	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	P-5 N-3	
Lancaster Lancaster	Suspended Particulate N.A.S.N.-8A	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	4/26/57	10/ 6/57	1	24 hr.	1/ 2 wk.	63 69	82	P-5 N-3	
Lebanon Lebanon	Dustfall Insolubles Solubles	Pa. S.H.D.	4/21/59	6/30/59	7	30 days	1/ mo.	2	--	P-5	L
	Suspended Particulate Total Weight	Pa. S.H.D.	4/21/59	6/30/59	2	48 hr.	2-3/ wk.	69	--	P-5	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: PENNSYLVANIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Lehigh Allentown	Suspended Particulate N.A.S.N.-9A N.A.S.N.-10A	Allentown City H.D., & U.S.D.H.E.W., P.H.S.	3/28/57 1/13/59	12/26/57 6/25/59	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	A-9 N-3	
Lehigh Lehigh	Dustfall Total Weight Particle Count Particle Size	Lehigh Valley A.P.C.	10/ 1/58	6/30/59	6	30 days	12/ year	2	65	L-3	H
Luzerne W. Nanticoke	Dustfall Total Weight	Pa. S.H.D.	12/17/58	1/17/59	4	31 days	1/ mo.	2	--	P-5	I
	Suspended Particulate Total Weight	Pa. S.H.D.	12/17/58	1/17/59	1	24 hr.	6/ mo.	69	--		
Luzerne Wilkes-Barre	Suspended Particulate N.A.S.N.-10	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	1/ 2/58	12/31/58	1	24 hr.	1/ 2 wk.	63 69	82	P-5 N-3	
Lycoming Williamsport	Suspended Particulate N.A.S.N.-11	Pa. S.H.D., & U.S.D.H.E.W., P.H.S.	2/12/56	5/26/56	1	24 hr.	3-4/ mo.	63 69	82	P-5 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: PENNSYLVANIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Philadelphia											
Philadelphia	Carbon Monoxide	Philadelphia D.P.H.	2/ 1/56	6/30/59	1	1 hr.	1/ day	25	16	P-9	J
	Dustfall	Philadelphia									
	Insolubles	D.P.H.	2/ 1/56	6/30/59	5-8	30 days	12/ year	3	--	P-9	
	Solubles										
	pH										
	Sulfur Dioxide	Philadelphia	2/ 1/56	6/30/59	1	1 hr.	1/ day	35	81		
		D.P.H.	1/ 1/57	6/30/59	1	Cont.	Cont.	27	79	P-9	
			1/ 1/57	6/30/59	1	Cont.	Cont.	57	80		
	Suspended Particulate	Philadelphia D.P.H., &									
	N.A.S.N.-11	U.S.D.H.E.W.,	1/ 3/56	12/30/56	1	24 hr.	18-30/mo.	63	82	P-9	
	N.A.S.N.-11	P.H.S.	1/ 3/56	12/30/56	1	24 hr.	5-31/ mo.	69		N-3	
	N.A.S.N.-11		1/ 3/56	12/30/56	3	24 hr.	2-5/ mo.				A
	N.A.S.N.-8A		1/ 7/57	12/23/57	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-5		1/ 5/58	12/30/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 9/59	6/25/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate	Philadelphia D.P.H.									
	Soiling		2/ 1/56	6/30/59	2	2 hr.	Cont.	59	72	P-9	I
	Suspended Particulate	Philadelphia D.P.H.									
	Total Weight		1/ 1/56	6/30/59	2	24 hr.	365/year	69	--	P-9	
			1/ 1/56	6/30/59	3	24 hr.	4/ mo.	69	--		

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: PENNSYLVANIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Venango											
Oil City	Dustfall Insolubles Solubles Nonvolatiles- Insoluble	I.H.F.	5/ 5/58	9/ 5/58	1	30 days	1/ mo.	19	--	I-5	
	Suspended Particulate Soiling	I.H.F.	5/ 5/58	9/ 5/58	2	2 hr.	Cont.	59	72	I-5	
Westmoreland											
New Kensington	Dustfall Insolubles Solubles Nonvolatiles- Insoluble	I.H.F.	4/ 1/58	11/ 7/58	1	30 days	1/ mo.	19	--	I-5	
Westmoreland											
Seward	Dustfall Total Weight	Pa. S.D.H.	1/15/58	2/14/58	6	30 days	--	2	--	P-5	L K
	Hydrogen Sulfide	Pa. S.D.H.	1/14/58	1/31/58	1	1 hr.	Cont.	21	42	P-5	K
	Sulfur Dioxide	Pa. S.D.H.	1/14/58 2/ 1/59	1/31/58 6/25/59	1 1	Cont. Cont.	Cont. Cont.	56	79	P-5	K
York											
York	Suspended Particulate N.A.S.N.-10A	York City H.D., & U.S.D.H.E.W., P.H.S.	1/10/59	6/30/59	1	24 hr.	1/ 2 wk.	63 69	82	Y-4 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: PENNSYLVANIA

A. During a two-year period beginning September 1, 1957, special samples were collected at two stations for a cancer study under the auspices of the National Cancer Institute. Samples were collected using high-volume samplers with 8" x 10" glass fiber filters and one low-volume sampler, 12 cfm positive displacement pump, with an 8" x 10" millipore filter.

The high-volume samples were collected at the rate of 3 per week per station with sampling periods of from 48 to 72 hours. Step-down voltage transformers were used to reduce sampling rates to obtain the longer sampling periods. The low-volume samplers were operated continuously until the pressure drop across the filter exceeded 5" Hg., or at the end of 30 days, whichever occurred first.

The high-volume samples were analyzed for total weight, benzene solubles, and radioactivity. The benzene solubles were fractionated into water soluble, bases, acids, and neutrals. Then the neutral fraction was in turn separated into aromatic hydrocarbons, aliphatic hydrocarbons, and oxygenated components. The low-volume samples were weighed and the collected material mechanically removed for use in animal experiments. Data from this study are available from the Robert A. Taft Sanitary Engineering Center (Agency C-25 or N-3).

B. Stations in residential areas.

C. Station located in Municipal Building.

D. Selected samples analyzed for chlorides, nitrates, sulfates, and metals. Steel Strike, 1956.

E. Civic Center.

F. Downtown Ambridge.

G. Near a large power plant.

H. Stations located in Lehigh Valley Portland Cement producing area where nuisance and property damage results from chemical action of heavy cement dustfall. Wet gages, 1 sq. ft. collecting area, and dry gages, 0.35 sq. ft. collecting area.

I. Stations located on roof of City Hall Annex and at Laboratory, 3200 Frankford Avenue.

J. Occasional measurements in street during heavy traffic.

K. Residential near large power plant.

L. Glass jars, 100 sq. cm. collection area.

STATE: PUERTO RICO

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Rio Grande											
Loquillo Mt. (N.U.)	Suspended Particulate	Puerto Rico D.H., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-2		3/ 9/58	12/30/58	1	24 hr.	1/ 2 wk.	63	82	P-17	
	N.A.S.N.-2A		1/13/59	6/27/59	1	24 hr.	1/ 2 wk.	69		N-3	
San Juan											
San Juan	Suspended Particulate	Puerto Rico D.H., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-8		1/ 9/57	12/ 7/57	1	24 hr.	1/ 2 wk.	63	82	P-17	
	N.A.S.N.-13		5/31/58	12/19/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-10A		1/13/59	6/22/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: RHODE ISLAND

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Providence											
Providence	Suspended Particulate	Providence D.A.P.C., &									
	N.A.S.N.-10B	U.S.D.H.E.W.,	1/ 4/57	12/25/57	1	24 hr.	1/ 2 wk.	63	82	P-16	
	N.A.S.N.-12	P.H.S.	1/ 3/58	12/29/58	1	24 hr.	1/ 2 wk	69		N-3	
	N.A.S.N.-2A		1/ 5/59	6/21/59	1	24 hr.	1/ 2 wk.				
Washington											
Pine Hill Fire Tower (N.U.)	Suspended Particulate	Dept. of Ag. & Conservation, &									
	N.A.S.N.-2	U.S.D.H.E.W.,	4/26/58	12/19/58	1	24 hr.	1/ 2 wk	63	82	R-2	
	N.A.S.N.-2A	P.H.S.	1/ 9/59	6/12/59	1	24 hr.	1/ 2 wk.	69		N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: SOUTH CAROLINA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Charleston											
Charleston	Suspended Particulate N.A.S.N.-10A	Charleston C.H.D. & U.S.D.H.E.W., P.H.S.	1/ 9/59	6/27/59	1	24 hr.	1/ 2 wk.	63 69	82	C-9 N-3	
Greenville											
Greenville	Suspended Particulate N.A.S.N.-10B	Greenville Div. of Smoke & A.P.C. & U.S.D.H.E.W., P.H.S.	1/ 8/57	12/28/57	1	24 hr.	1/ 2 wk.	63 69	82	G-11 N-3	
Richland											
Columbia	Suspended Particulate	Columbia Dept. Public Works, &									
	N.A.S.N.-10B	U.S.D.H.E.W.,	1/ 6/57	12/27/57	1	24 hr.	1/ 2 wk.	63	82	C-23	
	N.A.S.N.-13	P.H.S.	1/ 4/58	12/27/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/10/59	6/23/59	1	24 hr.	1/ 2 wk.				
Richland											
Sand Hill Animal Disease Lab. (N.U.)	Suspended Particulate N.A.S.N.-2A	S.C.S.B.H., & U.S.D.H.E.W., P.H.S.	1/ 6/59	6/28/59	1	24 hr.	1/ 2 wk.	63 69	82	S-28 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: SOUTH DAKOTA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Custer											
Black Hills Nat'l. Forest (N.U.	Suspended Particulate	U.S. Forest Service, &									
	N.A.S.N.-8	U.S.D.H.E.W.,	11/28/57	12/20/57	1	24 hr.	1/ 2 wk.	63	82	B-16	
	N.A.S.N.-5	P.H.S.	1/13/58	12/27/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/12/59	6/ 3/59	1	24 hr.	1/ 2 wk.				
Minnehaha											
Sioux Falls	Suspended Particulate	Sioux Falls City H.D., &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	1/ 4/57	12/25/57	1	24 hr.	1/ 2 wk.	63	82	S-24	
	N.A.S.N.-12	P.H.S.	1/ 7/58	12/29/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/16/59	6/13/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: TENNESSEE

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Davidson Nashville	Carbon Monoxide	U.S.D.H.E.W., P.H.S.	9/--/58	6/--/59	1	Cont.	Cont.	44	18	C-25 Z-2	
	Dustfall Insolubles Solubles Benzene Sol. Ash Combustibles	U.S.D.H.E.W., P.H.S.	9/--/58	6/--/59	11	30 days	12/ year	17	--	C-25 Z-2	A
	Insolubles		9/--/58	6/--/59	123	30 days	12/ year	17	--		
	Nitrogen Dioxide	U.S.D.H.E.W., P.H.S.	9/--/58	6/--/59	1	Cont.	Cont.	42	49	C-25	
			5/--/59	6/--/59	1	2 hr.	12/ Alt. days	45	50	Z-2	
	Oxidant	U.S.D.H.E.W., P.H.S.	9/--/58	6/--/59	1	Cont.	Cont.	42	60	C-25 Z-2	
	Sulfur Dioxide	U.S.D.H.E.W., P.H.S.	9/--/58	6/--/59	123	30 days	12/ year	43	76	C-25	A
			9/--/58	6/--/59	36	24 hr.	1/ day	31	78	Z-2	
			9/--/58	6/--/59	7	2 hr.	12/ day	45	78		
			9/--/58	6/--/59	1	Cont.	Cont.	56	79		
	Suspended Particulate	Nashville Dept. Public Works, &									
	N.A.S.N.-5A	U.S.D.H.E.W.,	1/12/57	12/19/57	1	24 hr.	1/ 2 wk.	63	82	N-2	
	N.A.S.N.-5	P.H.S.	1/ 4/58	12/19/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/12/59	6/30/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: TENNESSEE

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Davidson											
Nashville	Suspended Particulate	U.S.D.H.E.W., P.H.S.						63			
	Total Weight		9/--/58	6/--/59	11	24 hr.	1/ day	69	84	C-25	
	Benzene Sol.		9/--/58	6/--/59	1	2-4 wk.	1-2/ mo.	64	84	Z-2	B
	Nitrates										
	Sulfates										
	Suspended Particulate	U.S.D.H.E.W., P.H.S.									
	Soiling		9/--/58	6/--/59	36	24 hr.	1/ day	65	72	C-25	A
			9/--/58	6/--/59	11	2-4 hr.	6-12/ day	59	72	Z-2	
	Suspended Particulate	Nashville Dept. Smoke Reg.									
	Soiling		3/ 1/58	3/ 1/59	1	2 hr.	Cont.	59	72	N-2	
Hamilton											
Chattanooga	Dustfall	Chattanooga									
	Total Weight	B.A.P.C., & B.I.	1/ 1/56	6/30/59	8	30 days	12/ year	3	--	C-14	
	Ash										
	Combustibles										
	Suspended Particulate	Chattanooga B.A.P.C.& B.I.,									
	N.A.S.N.-7	& U.S.D.H.E.W.,	1/11/56	12/18/56	2	24 hr.	1-4/ mo.	63	82	C-14	
	N.A.S.N.-8A	P.H.S.	1/11/57	11/ 5/57	1-2	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-12		1/15/58	12/20/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 9/59	6/24/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate	Southern R. I.									
	Carbon		2/--/56	3/--/56	3	Var.	--	63	--	S-30	
	Iron				rov'g.			68			

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: TENNESSEE

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Hamilton Chattanooga	Suspended Particulate Soiling	Chattanooga B.A.P.C.& B.I.	--/--/59	--/--/--	1	2 hr.	Cont.	59	72	C-14	
Knox. Knoxville	Suspended Particulate N.A.S.N.-9A N.A.S.N.-10A	Knoxville Dept. Public Works, Div. Smoke Reg. & U.S.D.H.E.W., P.H.S.	1/11/57 1/ 6/59	12/21/57 6/12/59	1 1	24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk.	63 69	82	K-9 N-3	
Shelby Memphis	Suspended Particulate N.A.S.N.-10	Memphis-Shelby C.H.D., & U.S.D.H.E.W., P.H.S.	1/14/58	12/20/58	1	24 hr.	1/ 2 wk.	63 69	82	M-13 N-3	
Steward Ft. Donelson (N.U.)	Suspended Particulate N.A.S.N.-8 N.A.S.N.-5 N.A.S.N.-2A	Nat'l. Park Service, & U.S.D.H.E.W., P.H.S.	4/23/57 3/11/58 1/16/59	12/ 9/57 12/31/58 6/16/59	1 1 1	24 hr. 24 hr. 24 hr.	1/ 2 wk. 1/ 2 wk. 1/ 2 wk.	63 69	82	F-6 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: TENNESSEE

A. Sampling equipment mounted on utility poles approximately eleven feet above ground.

B. Benzene solubles, nitrates and sulfates were determined on the two highest and the lowest total weight samples per month per station. The remaining samples were extracted with benzene for carcinogencity studies. The benzene solubles were fractionated into water soluble, bases, acids, and neutrals. The neutral fraction was in turn separated into aromatic hydrocarbons, aliphatic hydrocarbons, and oxygenated components.

A low volume sampler, utilizing a 12 cfm positive displacement pump with an 8" x 10" millipore filter was also operated continuously until the pressure drop across the filter exceeded 5" Hg., or at the end of 30 days, whichever occurred first. The low-volume samples were weighed and the collected material mechanically removed for use in animal experiments. Data from this study are available from the Robert A. Taft Sanitary Engineering Center (Agency C-25 or N-3).

STATE: TEXAS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Bexar											
San Antonio	Suspended Particulate	San Antonio H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-8A	P.H.S.	1/ 5/57	12/19/57	1	24 hr.	1/ 2 wk.	63	82	S-9	
	N.A.S.N.-12		1/ 6/58	12/20/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/13/59	6/22/59	1	24 hr.	1/ 2 wk.				
Calhoun											
Port Lavaca (N.U.)	Hydrocarbons	Texas A & M	5/ 1/56	10/ 1/59	1	1 hr.	1-3/year	--	36	T-6	B
	Suspended Particulate	Port Lavaca-Calhoun C.S.P., &									
	N.A.S.N.-8A	U.S.D.H.E.W.,	3/ 6/57	12/25/57	1	30 days	1/ mo.	63	82	P-15	A
	N.A.S.N.-5	P.H.S.	1/ 5/58	12/24/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 7/59	3/31/59	1	24 hr.	1/ 2 wk.				
Dallas											
Dallas	Suspended Particulate	Dallas City H.D. & U.S.D.H.E.W.,									
	N.A.S.N.-8A	P.H.S.	1/ 1/57	12/12/57	1	24 hr.	1/ 2 wk.	63	82	D-2	
	N.A.S.N.-12		1/25/58	11/ 8/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/26/59	5/13/59	1	24 hr.	1/ 2 wk.				
El Paso											
El Paso	Aldehydes	El Paso City-C.H.D.	2/14/58	4/ 3/59	3	30 min.	1/ wk.	31	8	E-5 A-19	
	Carbon Monoxide	El Paso City-C.H.D.	6/ 5/58	6/26/59	11	--	Var.	24	16	E-5 A-19	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: TEXAS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
El Paso El Paso	Dustfall Total Weight Chlorides Nitrates Sulfates pH Al, Ca, Fe, Mg, Si	El Paso City-C.H.D.	5/21/57 2/ 4/58 8/ 4/58	7/10/57 3/ 7/58 9/ 3/58	32 16 17	30 days 30 days 30 days	-- -- --	3	84 67	E-5 A-19	
	Hydrocarbons	El Paso City-C.H.D.	3/25/59	5/26/59	6	30-60 min.	2/ wk.	54	37	E-5 A-19	
	Hydrogen Sulfide	El Paso City-C.H.D.	1/30/58	11/14/58	8	1 hr.	Cont.	21	42	E-5 A-19	
	Nitrogen Oxides	El Paso City-C.H.D.	2/14/58	4/ 3/59	3	30 min.	1/ wk.	31	52	E-5 A-19	
	Oxidants	El Paso City-C.H.D.	2/14/58	4/ 3/59	3	30 min.	1/ wk.	37	61	E-5 A-19	
	Sulfur Dioxide	El Paso City-C.H.D.	1/18/57	6/26/59	8	6-35 min.	--	31	74	E-5 A-19	
	Suspended Particulate N.A.S.N.-10B	El Paso City-C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 4/57	12/26/57	1	24 hr.	1/ 2 wk.	63 69	82	E-5 N-3	
	Suspended Particulate Soiling	El Paso City-C.H.D.	5/15/58	6/30/59	5	8 hr.	Cont.	59	72	E-5 A-19	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: TEXAS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Galveston Galveston	Suspended Particulate N.A.S.N.-10A	Galveston City H.D., & U.S.D.H.E.W., P.H.S.	1/ 7/59	6/11/59	1	24 hr.	1/ 2 wk.	63 69	82	G-1 N-3	
Galveston Texas City	Suspended Particulate N.A.S.N.-10A	Galveston C.H.D. & U.S.D.H.E.W., P.H.S.	1/21/59	6/17/59	1	24 hr.	1/ 2 wk.	63 69	82	G-2 N-3	
Harris Bellaire	Suspended Particulate N.A.S.N.-6	Houston City H.D. & U.S.D.H.E.W., P.H.S.	1/ 3/56	3/22/56	1	24 hr.	3-4/ mo.	63 69	82	H-6 N-3	
Harris Houston	Aldehydes	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	6	S-31 M-33	
	Ammonia	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	10	S-31 M-33	
	Carbon Monoxide	Southwest R.I.	5/--/56	5/--/68	1 rov'g.	--	--	25	16	S-31 M-33	
	Chlorides	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	19	S-31 M-33	
	Chlorine	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	21	S-31 M-33	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: TEXAS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Harris Houston	Fluorides	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	30	S-31 M-33	
	Hydrocarbons	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	54	40	S-31 M-33	
	Hydrogen Sulfide	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	21	42	S-31 M-33	
	Nitrogen Dioxide	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	53	S-31 M-33	
	Oxidant	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	60	S-31 M-33	
	Sulfate	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	74	S-31 M-33	
	Sulfur Dioxide	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	31	78	S-31	
			5/--/56	5/--/58	1 rov'g.	Cont.	Cont.	57	80	M-33	C
			5/--/56	5/--/58	Var.	--	--	79	--	M-31 M-32 B-17	D
	Suspended Particulate N.A.S.N.-6	Houston City H.D., & U.S.D.H.E.W., P.H.S.	1/11/56	12/27/56	1	24 hr.	1-5/ mo.	63	84	H-6	
	N.A.S.N.-8A		1/12/57	12/28/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/13/58	12/30/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 3/59	6/ 8/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: TEXAS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Harris Houston	Suspended Particulate Particle Count	Southwest R.I.	5/--/56	5/--/58	1 rov'g.	--	--	70	65	S-31 M-33	
	Suspended Particulate Total Weight Benzene Sol. Chlorides Nitrates Sulfates Metals (21)	Southwest R.I.	5/--/56	5/--/58	Var.	--	--	63 69	84	S-31 M-33	
Jefferson Beaumont	Sulfur Dioxide	Jefferson C.H.D.	1/ 1/59	6/30/59	1 rov'g. at 6 sta.	Cont.	Cont.	57	80	J-4	
	Suspended Particulate N.A.S.N.-10A	Beaumont City H.D., & U.S.D.H.E.W., P.H.S.	1/ 8/59	6/26/59	2	24 hr.	1/ 2 wk.	63 69	82	B-5 N-3	
McLennan Waco	Suspended Particulate N.A.S.N.-10	Waco-McLennan C.H.D., & U.S.D.H.E.W, P.H.S.	1/ 8/58	12/17/58	1	24 hr.	1/ 2 wk.	63 69	82	M-1 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: TEXAS

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Nueces											
Corpus Christi	Suspended Particulate N.A.S.N.-8A	Corpus Christi-Nueces C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 1/57	12/23/57	1	24 hr.	1/ 2 wk.	63 69	82	C-28 N-3	
Tarrant											
Ft. Worth	Suspended Particulate	Ft. Worth City H.D., &									
	N.A.S.N.-6	U.S.D.H.E.W.,	1/ 3/56	11/12/56	1	24 hr.	2-5/ mo.	63	82	F-8	
	N.A.S.N.-10	P.H.S.	1/14/58	12/23/58	1	24 hr.	1/ 2 wk.	69		N-3	
Travis											
Austin	Suspended Particulate N.A.S.N.-10	Austin-Travis H.D., & U.S.D.H.E.W., P.H.S.	1/10/58	12/29/58	1	24 hr.	1/ 2 wk.	63 69	82	A-16 N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: TEXAS

A. During 1957 samples were collected with a low-volume sampler using a 6 cfm, positive displacement, rotary vane type pump and an 8" x 10" glass fiber filter. The sampler was operated continuously and the filter changed at one month intervals.

B. 2000 - 3000 feet downwind from polyethylene plant.

C. Instrument operated continuously for 7 months.

D. Chemical analysis of vegetation for sulfate to determine distribution of pollution in different sections of the county.

STATE: UTAH

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Garfield											
Bryce Canyon Nat'l. Park (N.U.)	Suspended Particulate N.A.S.N.-5	Nat'l. Park Service & U.S.D.H.E.W., P.H.S.	1/13/58	12/26/58	1	24 hr.	1/ 2 wk.	63	82	B-13	
			1/ 3/59	6/ 5/59	1	24 hr.	1/ 2 wk.	69		N-3	
Salt Lake											
Salt Lake City	Suspended Particulate N.A.S.N.-6	Salt Lake City H.D., & U.S.D.H.E.W., P.H.S.	1/ 5/56	12/18/56	1	24 hr.	1-5/ mo.	63	82	S-8	
	N.A.S.N.-8A		1/ 2/57	12/ 2/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-5		1/ 3/58	12/ 9/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 9/59	6/30/59	1	24 hr.	1/ 2 wk.				
Utah											
	Fluorides	Wash. State Univ.	5/ 1/56	9/30/56	8	1 mo.	1/ mo.	30	30	N-4	
			5/ 1/57	9/30/57	8	1 mo.	1/ mo.	30	30		

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: VERMONT

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Chittendon Burlington	Suspended Particulate N.A.S.N.-8	Vt. S.H.D., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-12		1/ 9/57	12/21/57	1	24 hr.	1/ 2 wk.	63	82	V-1	
	N.A.S.N.-2A		1/ 9/58	12/31/58	1	24 hr.	1/ 2 wk.	69		N-3	
			1/11/59	6/24/59	1	24 hr.	1/ 2 wk.				
Lamoille Mt. Mansfield State Park (N.U.)	Suspended Particulate N.A.S.N.-8	Vt. S.H.D., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-5		8/ 9/57	11/25/57	1	24 hr.	1/ 2 wk.	63	82	V-1	
			1/ 3/58	6/26/58	1	24 hr.	1/ 2 wk.	69		N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: VIRGINIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Alleghany											
Covington	Dustfall Total Weight	Va. S.H.D.	1/28/59	3/18/59	7	1 wk.	1/ wk.	2	--	V-3	A
	Suspended Particulate Soiling	Va. S.H.D.	1/28/59	3/18/59	7	2 hr.	Cont.	59	72	V-3	A
Botetourt											
Webster	Suspended Particulate Soiling	Va. S.H.D.	10/22/58	11/20/58	4	2 hr.	Cont.	59	72	V-3	B
Hampton (City)	Suspended Particulate N.A.S.N.-10	Hampton City H.D. & U.S.D.H.E.W., P.H.S.	1/14/58	12/30/58	1	24 hr.	1/ 2 wk.	63 69	82	H-3 N-3	
Henrico											
Richmond	Suspended Particulate	Richmond Div. A.P.C., &									
	N.A.S.N.-10B	U.S.D.H.E.W.,	1/ 3/57	12/17/57	1	24 hr.	1/ 2 wk.	63	82	R-5	
	N.A.S.N.-2A	P.H.S.	1/ 4/59	6/27/59	1	24 hr.	1/ 2 wk.	69		N-3	
Nelson											
Piney River	Suspended Particulate Soiling	Va. S.H.D.	5/13/58	7/ 1/58	5	2 hr.	Cont.	59	72	V-3	C

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: VIRGINIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Norfolk											
Norfolk	Suspended Particulate	Norfolk City H.D. & U.S.D.H.E.W.,									
	N.A.S.N.-3A	P.H.S.	1/14/57	12/26/57	1	24 hr.	1/ 2 wk.	63	82	N-24	
	N.A.S.N.-12		1/11/58	12/23/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 5/59	6/27/59	1	24 hr.	1/ 2 wk.				
Page											
Shenandoah Nat'l. Park (N.U.)	Suspended Particulate	Nat'l. Park Service, &									
	N.A.S.N.-8	U.S.D.H.E.W.,	5/10/57	12/19/57	1	24 hr.	1/ 2 wk.	63	82	S-23	
	N.A.S.N.-2	P.H.S.	1/13/58	12/23/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/22/59	6/30/59	1	24 hr.	1/ 2 wk.				
Pittsylvania											
Danville	Suspended Particulate	Danville Dept. A.P.C., &									
	N.A.S.N.-2A	U.S.D.H.E.W., P.H.S.	5/12/59	6/ 9/59	1	24 hr.	1/ 2 wk.	63 69	82	D-3 N-3	
Roanoke											
Roanoke	Suspended Particulate	Roanoke Dept. A.P.C., &									
	N.A.S.N.-10A	U.S.D.H.E.W., P.H.S.	1/ 5/59	6/15/59	1	24 hr.	1/ 2 wk.	63 69	82	h-7 N-3	
Washington											
Bristol	Suspended Particulate	Va. S.H.D.									
	Soiling		7/16/58	8/27/58	5	2 hr.	Cont.	59	72	V-3	D
			1/ 8/59	1/22/59	5	2 hr.	Cont.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

Notes: VIRGINIA

A. Sample stations in residential area surrounding industrial center.

B. Sample stations located around light weight aggregate mill in rural community.

C. Sample stations located around aplite mills in rural community.

D. Sample stations located in residential area downwind from industrial center.

STATE: WASHINGTON

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Clallam											
Cape Flattery Air Force Station (N.U.)	Suspended Particulate N.A.S.N.-5	U.S. Air Force, & U.S.D.H.E.W., P.H.S.	1/12/58	9/11/58	1	24 hr.	1/ 2 wk.	63	82	N-7	
	N.A.S.N.-2A		3/17/59	5/12/59	1	24 hr.	1/ 2 wk.	69		N-3	
Clark											
Vancouver	Dustfall Total Weight Combustibles Ash	Wash. S.H.D.	3/ 1/59	6/30/59	1	30 days	12/ year	18	--	W-2	
	Suspended Particulate Total Weight	Wash. S.H.D.	11/25/58	6/30/59	1	24 hr.	2/ wk.	67	--	W-2	
King											
Seattle	Dustfall Total Weight Ash Combustibles	Wash. S.H.D.	12/ 1/58	6/30/59	2	30 days	12/ year	18	--	W-2	
	Suspended Particulate N.A.S.N.-5	Seattle City Engr. Dept., & U.S.D.H.E.W., P.H.S.	1/ 2/57	12/28/57	1	24 hr.	1/ 2 wk.	63	82	S-21	
	N.A.S.N.-5		1/13/58	12/ 9/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 2/59	5/27/59	1	24 hr.	1/ 2 wk.				
	Suspended Particulate Total Weight Benzene Sol.	Wash. S.H.D.	5/29/58	6/30/59	2	24 hr.	1/ day	67	--	W-2	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: WASHINGTON

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
King											
Seattle	Suspended Particulate Soiling	Wash. S.H.D.	1/13/58	6/30/59	1	2 hr.	Cont.	59	72	W-2	
			6/15/58	6/30/59	1	3 hr.	Cont.				
Pierce											
Tacoma	Suspended Particulate N.A.S.N.-5	Tacoma A.P.C., & U.S.D.H.E.W., P.H.S.	1/18/58	12/19/58	1	24 hr.	1/ 2 wk.	63 69	82	T-1 N-3	
Spokane											
Mead	Fluorides	Wash. State Univ.	1/ 1/56	6/30/59	4-5	1 mo.	12/ year	30	30		
			6/ 5/57	6/18/57	1	Cont.	Cont.	46	--	W-4	
			9/--/56	--/--/--	100+	Growing	1/ year	79	30	A-17	
			9/--/57	--/--/--	100+	Season	1/ year				
			9/--/58	--/--/--	100+		1/ year				
	Sulfur Dioxide	Wash. State Univ.	6/ 5/57	6/18/57	1	Cont.	Cont.	46	--		
								56	79	W-4	
								57	80	A-23	
Spokane											
Spokane	Dustfall Total Weight Ash Combustibles	Wash. S.H.D.	12/ 1/58	6/30/59	6	30 days	12/ year	18	--	W-2	
	Suspended Particulate Total Weight Benzene Sol.	Wash. S.H.D.	5/ 4/58	6/30/59	1	24 hr.	2-6/ wk.	67	--	W-2	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: WASHINGTON

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Spokane											
Spokane	Suspended Particulate	Wash. S.H.D.									
	Soiling		1/ 4/59	6/30/59	1	2 hr.	Cont.	59	72	M-2	
Stevens											
Northport	Fluorides	Wash. State Univ.	6/ 1/56	10/ 1/56	9	1 mo.	1/ mo.	30	30		
			9/--/56	--/--/--	25	Growing	1/year	79	30		
			9/--/57	--/--/--	25	Season	1/ year				
			9/--/58	--/--/--	25		1/ year				
Whatcom											
Bellingham	Suspended Particulate	Wash. S.H.D., & Watcom C.H.D.									
	Total Weight Benzene Sol.		3/ 2/59	6/30/59	1	24 hr.	2/ wk.	67	--	M-2 M-10	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: WEST VIRGINIA

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Cabell											
Huntington	Suspended Particulate N.A.S.N.-10	Cabell-Huntington C.H.D., & U.S.D.H.E.W., P.H.S.	1/ 8/58	12/24/58	1	24 hr.	1/ 2 wk.	63 69	82	C-5 N-3	
Kanawha											
Charleston	Suspended Particulate	W. Va. S.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-6	P.H.S.	1/11/56	10/19/56	1	24 hr.	1-4/ mo.	63	82	W-9	
	N.A.S.N.-3A		1/ 4/57	12/23/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-12		1/12/58	12/24/58	1	24 hr.	1/ 2 wk.				
	N.A.S.N.-2A		1/ 7/59	6/ 3/59	1	24 hr.	1/ 2 wk.				
Kanawha											
Charleston Airport	Suspended Particulate	W. Va. S.H.D., & U.S.D.H.E.W.,									
	N.A.S.N.-6	P.H.S.	1/ 4/56	2/ 8/56	1	24 hr.	2/ mo.	63 69	82	W-9 N-3	
Ohio											
Wheeling	Suspended Particulate	Wheeling City Dept. A.P.C., &									
	N.A.S.N.-1	U.S.D.H.E.W.,	7/ 4/56	10/17/56	1	24 hr.	1-2/ mo.	63	82	W-11	
	N.A.S.N.-8A	P.H.S.	1/15/57	12/22/57	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-10A		1/10/59	6/23/59	1	24 hr.	1/ 2 wk.				
Webster											
Holly River State Park (N.U.)	Suspended Particulate	W. Va. S.H.D., State Conservation Dept., &									
	N.A.S.N.-8		5/21/57	12/31/57	1	24 hr.	1/ 2 wk.	63	82	W-9	
	N.A.S.N.-2	U.S.D.H.E.W.,	1/ 8/58	12/18/58	1	24 hr.	1/ 2 wk.	69		H-5	
	N.A.S.N.-2A	P.H.S.	1/13/59	6/23/59	1	24 hr.	1/ 2 wk.			N-3	

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: WISCONSIN

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES FROM	DATES TO	NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES* A	APPENDICES* B	APPENDICES* C	NOTES
Brown											
Green Bay	Dustfall Total Weight Benzene Sol Insolubles Solubles Ash Combustibles HCl Sol.	Green Bay A.P., & Heating Inspect.	1/ 1/56	6/30/59	7	30 days	12/ year	3	--	G-10	
Dane											
Madison	Suspended Particulate N.A.S.N.-10A	Madison City H.D. & U.S.D.H.E.W., P.H.S.	1/ 9/59	6/28/59	1	24 hr.	1/ 2 wk.	63 69	82	M-2 N-3	
Door											
Peninsula State Park (N.U.)	Suspended Particulate N.A.S.N.-2	Wis. State Conservation Dept., & U.S.D.H.E.W.,	1/29/58	12/23/58	1	24 hr.	1/ 2 wk.	63	82	W-15	
	N.A.S.N.-2A	P.H.S.	1/15/59	6/12/59	1	24 hr.	1/ 2 wk.	69		N-3	
Milwaukee											
Milwaukee	Dustfall Total Weight Ash Combustibles	Milwaukee County Dept. of Smoke Regulation	1/ 1/56	--/--/--	60	30 days	12/ year	2	--	M-20	
	Suspended Particulate N.A.S.N.-5A	Milwaukee County Dept. of Smoke Reg., &	1/ 5/57	12/29/57	1	24 hr.	1/ 2 wk.	63	82	M-20	
	N.A.S.N.-5	U.S.D.H.E.W.,	1/ 6/58	12/21/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A	P.H.S.	1/10/59	6/12/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: WISCONSIN

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Racine Racine	Suspended Particulate N.A.S.N.-9A	Racine City H.D. & U.S.D.H.E.W., P.H.S.	1/ 4/57	12/23/57	1	24 hr.	1/ 2 wk.	63 69	82	R-1 N-3	

*A - Sampling Equipment; B - Analytical Method; C - Agencies & References

STATE: WYOMING

COUNTY AND CITY	SAMPLE CATEGORIES	ORGANIZATION	DATES		NO. OF STATIONS	SAMPLING PERIOD	SAMPLING FREQUENCY	APPENDICES*			NOTES
			FROM	TO				A	B	C	
Laramie											
Cheyenne	Suspended Particulate	Wyo. S.H.D., & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-3A		1/10/57	12/27/57	1	24 hr.	1/ 2 wk.	63	82	W-20	
	N.A.S.N.-5		1/ 8/58	12/25/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/10/59	6/19/59	1	24 hr.	1/ 2 wk.				
Yellowstone Nat'l. Park (N.U.)	Suspended Particulate	Nat'l. Park Service, & U.S.D.H.E.W., P.H.S.									
	N.A.S.N.-8A		3/20/57	12/ 5/57	1	24 hr.	1/ 2 wk.	63	82	Y-1	
	N.A.S.N.-5		2/ 8/58	12/12/58	1	24 hr.	1/ 2 wk.	69		N-3	
	N.A.S.N.-2A		1/ 9/59	6/27/59	1	24 hr.	1/ 2 wk.				

* A - Sampling Equipment; B - Analytical Method; C - Agencies & References

APPENDIX A

Sampling Equipment

Dustfall

1. A.S.T.M. cylindrical Pyrex jar, No. J3200, Corning
2. Dustfall collector (not specified)
3. Glass jar, 1 gal. with screw-cap top
4. Glass battery jar with stainless steel lid
5. Glass jar, 3.5 liter square with screw-cap top, Anchor Hocking No. 274
6. Glass jar, 3.5 liter round with screw-cap top
7. Glass jar, 3 gal. with screw-cap top
8. Glass jar, 5" diam. by 11"
9. Glass jar, 1 pt. with screw-cap top, Kerr
10. Glass jar, 1 and 2 pt. with screw-cap top
11. Glass battery jar, 4 liter, with pressure rubber covers
12. Glass jar, 6" diam. by 8"
13. Glass beaker, 600 ml
14. Glass beaker, 1500 ml
15. Polyethylene juice container, 50 oz., 4 1/2" diam. by 8" (Tupperware, et.al.)
16. Polyethylene container (not specified)
17. Polyethylene waste basket
18. Polyethylene jar, 5 qt. with 4" diam. opening
19. Stainless steel container, 4 1/8" diam. by 5 3/4"
20. Dustfall collector (Detroit)

Gases

21. A.I.S.I. hydrogen sulfide sampler, Research Appliance Company
22. Beckman infrared
23. Beckman oxidant recorder
24. Carbon monoxide indicator, M.S.A.
25. Carbon monoxide indicator, N.B.S.
26. Chaney automatic sampler
27. Davis electro-conductivity analyzer
28. Electro-conductivity analyzer, (not specified)
29. Filter paper - calcium formate treated
30. Filter paper - lime treated
31. Fritted-glass bubbler
32. Grab flasks, (not specified)

33. Haagen-Smit automatic sampler

34. Impinger, ASECO automatic

35. Impinger, Greenburg-Smith

36. Impinger, midget

37. Impinger, (not specified)

38. Impinger, Wilson automatic

39. Kruger atmosphere analyzer (Ozone photometer, et.al.)

40. Kruger atmosphere analyzer, Model 71

41. Kruger atmosphere analyzer, Model 72

42. Kruger atmosphere analyzer, Model 73

43. Lead peroxide candles

44. Lira infrared analyzer, M. S. A.

45. Model A, automatic sequential sampler, Research Appliance Co.

46. Mini-Adak analyzer

47. Nitrogen oxides recorder, Borman Engineering Company

48. Ozonometer

49. Perkin-Elmer infrared

50. Rubber strips

51. Sequential sampler, Gelman

52. Sequential sampler, Kellog

53. Sequential sampler, Kettering Laboratory

54. Shepherd liquid oxygen trap

55. Smog collector, Western Scientific Apparatus

56. Thomas Autometer, Leeds and Northrup

57. Titrilog, Consolidated Electrodynamics

58. Wilson tape sampler

Suspended Particulate

59. A.I.S.I. automatic smoke sampler, Research Appliance Company

60. Cascade impactor, Casella Company

61. Chaney Auto-sampler

62. Electrostatic precipitator, M.S.A.

63. Filter, 8" x 10" glass fiber

64. Filter, Millipore

65. Filter, cellulose

66. Filter, (not specified)

67. High volume sampler, General Metal Works

68. High volume sampler, Staplex Company

69. High volume sampler, (not specified)

70. Impinger, midget

71. Impinger, Greenburg-Smith

72. Impinger, (not specified)

73. Thermal precipitator, (not specified)

Special

74. Carbon steel coil springs

75. 55 liter flask irradiated by four 400 watt ultraviolet lamps

76. Observer panel

77. Poa annua (blue grass) and Rosy Morn Petunia

78. Two, 2" iron discs, one, 4" x 4", #16 gage non-galv. wire

79. Vegetation

APPENDIX B

Analytical Methods

Acetylene

1. "Acetylene, APCD 1-54," Laboratory Methods, Los Angeles C.A.P.C.D., 1958.

Acid Gases

2. Measure change in electrical conductivity of absorbing solution.

Acidity

3. Titration.

4. Titration as CO_2 and SO_2. (see 24).

Aldehydes

5. Wilson, K.W., "Fixation of Atmospheric Carbonyl Compounds by Sodium Bisulfite," Anal. Chem., 30, 1127 (1958).

6. Goldman, F. H. and Yagoda, H., "Collection and Estimation of Traces of Formaldehyde in Air," Ind. Eng. Chem., Anal. Ed., 15, 337 (1943).

7. "Aldehydes, Total, APCD 5-46," Laboratory Methods, Los Angeles C.A.P.C.D., 1958.

8. Iodine titration with sodium bisulfite collection.

Ammonia and Ammonium Ion

9. "Ammonia and Ammonium Ion, APCD 6-56," Laboratory Methods, Los Angeles C.A.P.C.D., 1958.

10. Nessler's reagent.

Arsenic

11. Silver diethyldithiocarbamate method.

Calcium and Magnesium

12. Emission spectrography. (see 82 & 83)

13. Complexiметric-versenate method.

14. Flame photometry.

Calcium Carbonate

15. Permanganate-oxalate method.

Carbon Monoxide

16. Color comparison on solid adsorbent (M.S.A. or N.B.S. indicator tube).

17. Shepherd, M., "Rapid Determination of Small Amounts of Carbon Monoxide," Anal. Chem., 19, 77, (1947).

18. Infrared Spectroscopy.

Chlorine and Chloride Ion

19. Luce, E. N., Dinice, E. C. and Akerlund, F. E., "Turbidimetric Determination of Small Amounts of Chlorides," Ind. Eng. Chem., Anal. Ed., 15, 365 (1943).

20. Mercuric nitrate titration. (see 24)

21. Orthotolidene method.

Corrosion

22. Change in tensile strength of spring.

23. Loss in weight.

Dustfall

24. "Dustfall, APCD 7-53," Laboratory Methods, Los Angeles C.A.P.C.D., 1958. (Total weight, insolubles solubles, chlorides, SO_2 and CO_2)

25. N.A.S.N. method for suspended particulates. (see 82 & 84)

26. Laboratory Methods, Armour Research Foundation, Illinois Institute of Technology.

27. Standard Methods for the Examination of Water, Sewage and Industrial Wastes, 10th Ed., A.P.H.A. Inc., New York, N.Y., 1955. (modified)

Ether Solubles

28. "Aerosols, Ether Soluble, APCD 2-54," Laboratory Methods, Los Angeles C.A.P.C.D., 1958.

Eye Irritation

29. Observation by selected individuals.

Fluorides

30. Willard, H. H., and Winter, O. B., "Volumetric Method for the Determination of Fluoride," Ind. Eng. Chem., Anal. Ed., 5, 7(1933). (modified)

31. Dahle, D., Bonnar, R. V. and Wichmann, H. J., "Titration of Small Quantities of Fluorides with Thorium Nitrate," J. Assoc. Offic. Agri. Chemists, 21, 459 (1938).

32. Megregian, S., "Rapid Spectrophotometric Determination of Fluoride with Zirconium-Eriochrome Cyanine R Lake," Anal. Chem., 26, 1161 (1954).

33. "Fluorides, APCD 15-57," Laboratory Methods, Los Angeles C.A.P.C.D., (1958).

34. Nielson, J. P. and Dangerfield, B. S., "Use of Ion Exchange Resins for Determination of Atmospheric Fluorides," A.M.A. Arch. Ind. Health, 11, 61, (1955).

35. Thorium nitrate-alizarin method.

Hydrocarbons

36. Young, R. E., Pratt, H. K., and Biale, J. B., "Manometric Determination of Low Concentrations of Ethylene," Anal. Chem., 24, 551 (1952).

37. MacPhee, R. D., "Use of Molybdates for Estimating Amount of Olefinic-Type Hydrocarbons in Air," Anal. Chem., 26, 221 (1954).

38. "Hydrocarbons, Total, APCD 10-54," Laboratory Methods, Los Angeles, C.A.P.C.D., 1958.

39. Mader, P. P., Heddon, M. W., Lofberg, R. T., and Koehler, R. H., "Determination of Small Amounts of Hydrocarbons in the Atmosphere," Anal. Chem., 24, 1899 (1952).

40. Infrared spectroscopy.

Hydrogen Sulfide

41. Methylene blue method.

42. Stain Comparison (lead acetate impregnated paper).

Iron

43. Emission spectrography. (see 82 & 83)

44. Potassium dichromate titration.

Iron Oxide

45. Thiocyanate titration.

Magnesium (see Calcium)

Magnesium Carbonate

46. Phosphate method.

Nitrates

47. Barnes, H. A., "Modified 2:4 xylenol Method for Nitrate Estimations," Analyst, 75, 338 (1950).

48. Brucine method.

Nitrogen Oxides

49. Saltzman, B. E., "Colorimetric Microdetermination of Nitrogen Dioxide in the Atmosphere," Anal. Chem., 26, 1949 (1954).

50. Jacobs, M. B. and Hockheiser, S., "Continuous Sampling and Ultramicrodetermination of Nitrogen Dioxide in Air," Anal. Chem., 30, 426 (1958).

51. "Oxides of Nitrogen (Griess-Saltzman Method), APCD 11-56," Laboratory Methods, Los Angeles C.A.P.C.D., 1958.

52. "Oxides of Nitrogen (Phenoldisulfonic Acid Method), APCD 12-56," Laboratory Methods, Los Angeles C.A.P.C.D., 1958.

53. Griess-Ilosvay method.

54. Thomas, M. D., et.al., "Automatic Apparatus for Determination of Nitric Oxide and Nitrogen Dioxide in the Atmosphere," Anal. Chem., 28, 1810 (1956).

Odor and Irritation

55. Observation by selected individuals.

56. Mass spectrometer.

Oxidants

57. Littman, F. E. and Benoliel, R. W., "Continuous Oxidant Recorder," Anal. Chem., 25, 1480 (1953).

58. Smith, R. G. and Diamond, P., "The Microdetermination of Ozone," A.I.H.A. Quart., 13, 235 (1952).

59. Haagen-Smit, A. J. and Brunelle, M. F., "The Application of Penolphthalin Reagent to Atmospheric Analysis," Int. J. Air Pollution, 1, 51 (1958).

60. Potassium iodide method.

61. Phosphoric acid-sulfamic acid method.

Ozone

62. Beatty, J. R. and Juve, A. E., "A Simple Objective Method for Estimating Low Concentrations of Ozone in Air." Rubber World., 131, 232 (1954).

63. Bradley, C. E. and Haagen-Smit, J. J., "The Application of Rubber in the Quantitative Determination of Ozone," Rubber Chem. Technol., 24, 750 (1951).

64. "Ozone (Rubber Cracking Method), APCD 14-56," Laboratory Methods, Los Angeles C.A.P.C.D., 1958.

Particle Count and Size

65. Optical microscope.

66. Electron microscope.

pH

67. Electrometric.

68. Indicator paper.

Phosphates

69. Molybdenum blue method.

Plant Damage

70. Noble, W. and Wright, L., "Air Pollution with Relation to Agronomic Crops - II. A Bioassy Approach to the Study of Air Pollution," Agronomy Journal, 50, 551, (1958).

Precursor

71. Ten minutes of sample drawn from the atmosphere is recorded as oxidant by oxidant recorder. The next ten minutes of sample is drawn through an irridiation chamber and recorded as oxidant. This is followed by another 10 minutes of sample from the atmosphere. The difference between the oxidant values of the atmospheric and the artificially irradiated samples gives the amount of oxidant precursor.

Reflectance see Soiling

Soiling

72. Light transmission through filter paper (e.g., A.I.S.I. spot evaluator).

73. Light reflectance from filter paper (e.g., Photovolt reflectometer).

Sulfates

74. Barium sulfate precipitation-turbidimetric.

75. Bertolacini, R. J. and Barney, J. C., "Colorimetric Determination of Sulfate with Barium Chloranilate," Anal. Chem., 29, 281 (1957).

76. Barium sulfate precipitation-gravimetric.

Sulfur Dioxide

77. "Sulfur Dioxide (Barium Sulfate Method), APCD 13-49," Laboratory Methods, Los Angeles C.A.P.C.D., 1958.

78. West, P. W. and Gaeke, G. C., "Fixation of Sulfur Dioxide as Disulfitomercurate (II) and Subsequent Colorimetric Estimation," Anal. Chem., 28, 1816 (1956).

79. Measure change in electrical conductivity of absorbing solution (e.g., Thomas Autometer).

80. Titration of oxidizable sulfur compounds with electrically generated bromine (Titrilog).

81. Titration of scrubbing solution (hydrogen peroxide, fuchsin, iodine, or iodine-thiosulfate method).

Suspended Particulate - general

82. "Air Pollution Measurements of the N.A.S.N., 1953-1957," U.S.P.H.S. Bulletin No. 637, U. S. Gov't. Printing Office, Washington, D. C., 1958.

(Total weight, benzene solubles, reflectance, β-radioactivity, chlorides, nitrates, sulfates, arsenic, beryllium, bismuth, cadmium, chromium, cobalt, and vanadium) Also see 84.

83. "Aerosols, metals spectrographic, APCD 4-57X," Laboratory Methods, Los Angeles C.A.P.C.D., 1958. (aluminum, calcium, copper, iron, leading, magnesium, silicon, and zinc.)

84. Procedures for the Analysis fo Air Particulate Matter, Community Air Pollution Program, Robert A. Taft Sanitary Engineering Center, Cincinnati 26, Ohio (mimeographed). (Also see 82.)

Phenols

85. Smith, R. G., MacEwen, J. D., and Barrow, R. E., "Sampling and Analysis of Phenols in Air," J.A.I.H.A., 20, 142 (1959).

APPENDIX C

Agencies and References

A- 1. Acadia National Park Supt.
Bar Harbor, Me.

A- 2. Akron Public Health Dept.
Air Pollution Control.
Municipal Bldg.
Akron 8, Ohio

A- 3. Alabama State Dept. of Health
Division of Industrial Hygiene
Montgomery 4, Ala.

A- 4. Alameda County Health Dept.
Bureau of Sanitation
282 Eighth Street
Oakland 7, Calif.

A- 5. Alaska Dept. of Health
Alaska Office Bldg.
Juneau, Alaska

A- 6. Albany County Health Dept.
Division of Environmental Sanitation
409 Madison Avenue
Albany, N. Y.

A- 7. Albuquerque Health Dept.
P. O. Box 1293
Albuquerque, N. Mex.

A- 8. Allegheny County Health Dept.
Bureau of Environmental Health
620 City-County Bldg.
Pittsburgh 19, Pa.

A- 9. Allentown City Health Dept.
City Hall, 636 Linden Street
Allentown, Pa.

A-10. Altoona City Parks, Water, & Public Property
City Hall
Altoona, Pa.

A-11. Arctic Health Research Center
Environmental Sanitation Center
P. O. Box 960
Anchorage, Alaska

A-12. Arizona State Dept. of Health
Bureau of Sanitation
State Office Building
Phoenix, Ariz.

A-13. Arkansas State Board of Health
Chief Sanitary Engineer
Little Rock, Ark.

A-14. Armour Research Foundation
Illinois Institute of Technology
10 W. 35th Street
Chicago 16, Ill.

A-15. Atlanta-Fulton County Health Dept.
Industrial Sanitation Section
224 Central Avenue, S. W.
Atlanta, Ga.

A-16. Austin City-County Health Dept.
Sanitary Engineer
1313 Sabine Street
Austin, Tex.

A-17. Adams, D. F. and Koppe, R. K., "Automatic Atmospheric Fluoride Pollutant Analyzer," Anal. Chem., 31, 1249, (1959).

A-18. "Air Pollution Measurements of the National Air Sampling Network," U.S. Public Health Service Publication No. 637, Supt. of Documents, U.S. Govt. Printing Office, Washington 25, D. C., 1958.

A-19. Air Pollution in the El Paso, Texas Area, El Paso City-County Health Unit, 118 W. Missouri St., El Paso, Texas, 1959.

A-20. Air Pollution in Phoenix, Arizona - Report No. 1 on Air Pollution, Arizona State Department of Health, January, 1958.

A-21. "Air Pollution in Tucson, Arizona," Report No. 2 on Air Pollution, Arizona State Department of Health, January, 1959.

A-22. "Air Pollution in St. Bernard, Ohio," Technical Report A56-5, Community Air Pollution Program, Robert A. Taft Sanitary Engineering Center, Cincinnati 26, Ohio, 1958.

A-23. Adams, D. F., Dana, H. J., and Koppe, R. K., "Universal Air Pollutant Analyzer," U.S. Public Health Service Bulletin No. 907, Supt. of Documents, U. S. Govt. Printing Office, Washington 25, D. C., 1957.

B- 1. Baldwin County Health Dept.
Bay Minette, Ala.

B- 2. Baltimore City Health Dept.
Bureau of Industrial Hygiene
900 Municipal Bldg.
Baltimore 2, Md.

B- 3. Bay Area Air Pollution Control District
1480 Mission Street
San Francisco, Calif.

B- 4. Bayonne City Health Dept.
City Hall
Bayonne, N. J.

B- 5. Beaumont City Health Dept.
City Hall Annex
Beaumont, Tex.

B- 6. Berkeley City Health Dept.
2121 McKinley
Berkeley, Calif.

B- 7. Binghamton Bureau of Health
54 Hawley Street
Binghamton, N. Y.

B- 8. Binghamton City Health Officer
City Health Dept.
71 Collier Street
Binghamton, N. Y.

B- 9. Bismark City Health Dept.
P. O. Box 300
Bismark, N. Dak.

B-10. Boise City-County Health Dept.
209 Sherwood Street
Boise, Idaho

B-11. Bureau of Air Pollution Control
274 Middle Street
Bridgeport, Conn.

B-12. Brockton City Health Dept.
Brockton, Mass.

B-13. Bryce Canyon National Park
Bryce Canyon, Utah

B-14. Buffalo Commissioner of Public Works
2501 City Hall
Buffalo, N. Y.

B-15. Buncombe County Health Dept.
Asheville, N. C.

B-16. Black Hills Nat'l. Forest
Custer, South Dakota

B-17. Bieberdorf, F. W. et.al, "Vegetation as a Measure Indicator of Air Pollution, I, The Pine (PINUS-TAEDA)," Bull. Torrey Botan. Club, 85, 197 (1958).

C- 1. Caddo-Shreveport Health Unit
1866 Kings Hwy.,
P. O. Box 1097
Shreveport, La.

C- 2. California Institute of Technology
Pasadena, Calif.

C- 3. California State Dept. of Public Health
Bureau of Air Sanitation
2151 Berkeley Way
Berkeley 4, Calif.

C- 4. Camden Bureau of Fire
Fifth and Arch Streets
Camden 2, N. J.

C- 5. Cabell-Huntington Health Dept.
Principal Sanitarian
1336 Sixteenth Street
Huntington 1, W. Va.

C- 6. Canton City Health Dept.
City Hall
Canton 2, Ohio

C- 7. Cape Blanco Coast Guard Station
Sixes, Oreg.

C- 8. Cape Hatteras Nat'l. Seashore Rec. Area
National Park Service, Region 1
Cape Hatteras, N. C.

C- 9. Charleston County Health Dept.
Director of Sanitation
Charleston, S. C.

C-10. Cape May Coast Guard Station
Wildwood, N. J.

C-11. Charlotte Dept. of Air Pollution Control
600 E. Trade Stret
Charlotte 2, N. C.

C-12. Charlotte Health Dept.
Industrial Hygiene Section
Charlotte, N. C.

C-13. Chatham County Dept. of Public Health
Division of Engineering & Sanitation
Savannah, Ga.

C-14. Chattanooga Bur. of Air Pol. Control & Boiler Insp.
Room 228, City Hall
Chattanooga, Tenn.

C-15. Chicago Dept. of Air Pollution Control.
320 N. Clark Street, Room 500
Chicago 2, Ill.

C-16. Cincinnati Bureau of Air Pollution Control & Heating Inspection
2400 Beekman Street
Cincinnati 14, Ohio

C-17. Cincinnati Dept. of Safety
Air Pollution Control & Heating Engineer
417 Lincoln Park Drive
Cincinnati 3, Ohio

C-18. Clark County Health Dept.
County Court House
Vancouver, Wash.

C-19. Clark County Health Dept.
Stewart & 2nd Streets
Las Vegas, Nev.

C-20. Cleveland Division of Stream & Air Pollution Control
14101 Lakeshore Blvd.
Cleveland 10, Ohio

C-21. Colorado State Dept. of Public Health
Occupational Health Section
State Office Bldg.
Denver 2, Colo.

C-22. Columbia Livestock Sanitary Dept.
P. O. Box 1771
Columbia, S. C.

C-23. Columbia Public Works Dept.
Smoke Abatement Officer
Room 12, City Hall, 1735 Laurel Street
Columbia, S. C.

C-24. Columbus Health & Safety Center
Div. of Smoke Regulation & Inspection
181 Washington Blvd.
Columbus 22, Ohio

C-25. Community Air Pollution Program
Robert A. Taft Sanitary Engineering Center
4676 Columbia Parkway
Cincinnati 26, Ohio

C-26. Connecticut State Dept. of Health
Sanitary Engineering Service
165 Capitol Avenue
Hartford 15, Conn.

C-27. Contra Costa County Health Dept.
P. O. Box 871
Martinez, Calif.

C-28. Corpus Christi City-County Health Dept.
P. O. Box 49
Corpus Christi, Tex.

C-29. Covington Health Department
Room 208, City Bldg.
Covington, Ky.

C-30. Craters of the Moon Nat'l. Monument
Box 188
Arco, Idaho

C-31. Columbus-Muscogee County Health Dept.
P. O. Box 229
Columbus, Ga.

D- 1. Dade County Dept. of Health
Sanitation Section
1200 S. W. First Street
Miami 35, Fla.

D- 2. Dallas City Health Dept.
601 South Akard Street
Dallas, Tex.

D- 3. Danville Air Pollution Control Officer
P. O. Box 1122
Danville, Va.

D- 4. Davenport Board of Health
Chief Food Sanitarian
City Hall
Davenport, Iowa

D- 5. Davidson County Health Dept.
Sanitary Engineer
802 Second Avenue, South
Nashville 3, Tennessee

D- 6. Dayton Bureau of Air Pollution Control
Division of Building Inspection
101 W. Third Street
Dayton 2, Ohio

D- 7. Dearborn City Engineer
City Hall
Dearborn, Mich.

D- 8. Delaware State Board of Health
Air Pollution Authority
Dover, Del.

D- 9. Del Norte County Historical Society
Lighthouse Museum
Crescent City, Calif.

D-10. Division of Air Pollution Inspection
Room 472, City & County Bldg.
Denver, Colo.

D-11. Des Moines-Polk County Health Dept.
Environmental Sanitation Section
Des Moines, Iowa

D-12. Detroit Dept. of Buildings and Safety Engineering
Bureau of Air Pollution Control
Fourth Floor, City-County Bldg.
Detroit 26, Mich.

D-13. Detroit Department of Health
Bureau of Industrial Hygiene
Detroit 26, Mich.

D-14. District Forest Ranger
Black Hills Nat'l. Forest
P. O. Box 888
Newcastle, Wyo.

D-15. District of Columbia Dept. of Public Health
Public Health Engineering Division
Washington 1, D. C.

D-16. Donora Board of Education
Donora, Pa.

D-17. Duluth City Dept. of Public Health
Supervising Sanitarian
Duluth, Minn.

E- 1. East Baton Rouge Parish Health Unit
1819 Florida Street
Baton Rouge, La.

E- 2. East Chicago Bureau of Air Pollution
Room 9, City Hall
4525 Indianapolis Blvd.
East Chicago, Ind.

E- 3. East St. Louis Health Dept.
412 Missouri Avenue
East St. Louis, Ill.

E- 4. Elizabeth Board of Health
City Hall
Elizabeth, N. J.

E- 5. El Paso City-County Health Unit
Sanitary Engineer
118 W. Missouri Street
El Paso, Tex.

E- 6. Eminence Tower
Eminence, Mo.

E- 7. (See U-9)

E- 8. Erie Bureau of Air Pollution
City Hall Annex
Erie, Pa.

E- 9. Evansville Department of Smoke Control
Board of Public Works
1065 W. Pennsylvania Street
Evansville, Ind.

E-10. Effects of the 1956 Steel Strike on Air Pollution Levels in Several Communities, Proc. 51st Annual Meeting, Air Pollution Control Assoc., Philadelphia, Pa., May 25-29, 1958; paper 58-24.

F- 1. Fall River Fire Dept.
Central Fire Station
Bedford Street
Fall River, Mass.

F- 2. Flint City Dept. of Public Works & Utilities
Smoke Abatement Division
420 East Boulevard Drive
Flint, Mich.

F- 3. Florida State Board of Health
Division of Industrial Hygiene
1217 Pearl Street
Jacksonville, Fla.

F- 4. Florida State Board of Health
P. O. Box 944
Winter Haven, Fla.

F- 5. Forsyth County Health Dept.
Public Health Engineering Div.
Winston-Salem, N. C.

F- 6. Ft. Donelson Nat'l. Military Park & Cemetery
Dover, Tenn.

F- 7. Ft. Wayne Dept. of City Utilities
Sewage Treatment Plant
308 East Berry Street
Ft. Wayne, Ind.

F- 8. Ft. Worth Public Health & Welfare Dept.
100 Throckmorton
Ft. Worth, Tex.

F- 9. Fresno County Health Dept.
515 South Cedar Street
Fresno, Calif.

G- 1. Galveston City Health Dept.
City Hall
Galveston, Tex.

G- 2. Galveston County Health Dept.
La Marque, Tex.

G- 3. Gary Fire Dept.
Fire Station No. 1
Fifth & Connecticut Streets
Gary, Ind.

G- 4. General Mgr. Convention Hall
Atlantic City, New Jersey

G- 5. Georgia Dept. of Public Health
Division of Industrial Hygiene
State Office Bldg.
Atlanta 3, Ga.

G- 6. Georgia Dept. of Public Health
Georgia Institute of Technology
Atlanta, Ga.

G- 7. Grand Canyon Nat'l. Park
Grand Canyon, Ariz.

G- 8. Grand Rapids Air Pollution Control Inspector
Room 304, City Hall, 101 Lyons Street, N. W.
Grand Rapids, Mich.

G- 9. Grand Rapids Public Health Dept.
Grand Rapids, Mich.

G-10. Green Bay Air Pollution & Heating Inspection
100 Jefferson Street
Green Bay Wis.

G-11. Greenville Smoke Abatement & Air Pollution
Control Office
Room 401, City Hall
Greenville, S. C.

G-12. Guilford County Health Dept.
Greensboro, N. C.

G-13. Goldstron, L. N. and Craig, G. I., A Study and Report of Atmospheric Pollution in Cleveland's Greenhouse Area, March, 1958.

H- 1. Hamilton-Butler County Health Dept.
Municipal Bldg.
Hamilton, Ohio

H- 2. Hammond City Health Dept.
City Hall
Hammond, Ind.

H- 3. Hampton Health Dept.
Hampton, Va.

H- 4. Hartford Health Dept.
56 Conventry Street
Hartford, Conn.

H- 5. Holly River State Park
Hacker Valley, W. Va.

H- 6. Houston City Health Dept.
Room 1014, City Hall
Houston, Tex.

H- 7. Humboldt-Del Norte County Health Dept.
P. O. Box 857
Eureka, Calif.

H- 8. Hawaii State Board of Health
P. O. Box 3378
Honolulu, Hawaii

H- 9. Haagen-Smit, A. J., Brunelle, M. F. and Haagen-Smit, J., "Ozone Cracking in the Los Angeles Area," Rubber Chem. and Technol., 32, 1134 (1959).

H-10. Hendrickson, E. R., "Dispersion and Effects of Air-Borne Fluorides in Central Florida," Proceedings 53rd Annual Meeting, Air Pollution Control Assoc., Cincinnati, Ohio, May 22-26, 1960.

H-11. Hamming, W. J., MacPhee, R. D. and Taylor, J. R., "Contaminant Concentrations in the Atmosphere of Los Angeles County," J. Air Pollution Control Assoc., 10, 7, (1960).

H-12. Harrison, W. K. and Lodge, J. P., "Some Measurements of Oxidant Levels at Remote California Sites," J. Air Pollution Control Assoc., 8, 341 (1959).

H-13. Holzworth, G. L., "Atmospheric Contaminants at Remote California Coastal Sites," J. Meteorol., 16, 58 (1959).

I- 1. Idaho State Board of Health
P. O. Box 640
Boise, Idaho

I- 2. Illinois State Dept. of Public Health
Division of Sanitary Engineering
Bureau of Radiological Health and Air Pollution
400 S. Spring Street
Springfield, Ill.

I- 3. Indiana State Health Commissioner
Bureau of Environmental Sanitation
1330 West Michigan Street
Indianapolis, Ind.

I- 4. Indianapolis Bureau of Air Pollution Control
Room 8, City Hall
Indianapolis, Ind.

I- 5. Industrial Hygiene Foundation
Mellon Institute
4400 Fifth Avenue
Pittsburgh, Pa.

I- 6. Interstate Sanitation Commission
10 Columbus Circle
New York 19, N. Y.

I- 7. Iowa State Dept. of Health
Division of Public Health Engineering
1027 Des Moines Street
Des Moines 19, Iowa

I- 8. Iowa State Conservation Commission
Supt. of Fisheries
State Office and Laboratory Bldg.
East Seventh and Court Streets
Des Moines 19, Iowa

I- 9. Iowa State Fish Hatchery
Backbone State Park
Strawberry Point, Iowa

J- 1. Jackson City Health Dept.
Division of Environmental Health
132 W. Washington Avenue
Jackson, Mich.

J- 2. Jefferson County Air Pollution Control District
Room 2, City Hall
Louisville, Ky.

J- 3. Jefferson County Health Department
P. O. Box 2591
1912 Eighth Avenue, South
Birmingham, Ala.

J- 4. Jefferson County Health Dept.
County Court House
Beaumont, Tex.

J- 5. Jersey City Dept. of Health
Jersey City 4, N. J.

K- 1. Kalamazoo City-County Health Dept.
241 West South Street
Kalamazoo, Mich.

K- 2. Kansas City
City-County Health Dept.
Supt. of Sanitation
619 Ann Avenue
Kansas City 1, Kans.

K- 3. Kansas City
City Health Dept.
City Hall, 21st Floor
Kansas City 6, Mo.

K- 4. Kansas State Health Dept.
Division of Sanitation
P. O. Box 634
Hays, Kans.

K- 5. Kansas State Board of Health
Industrial Hygiene Section
State Office Bldg.
Topeka, Kans.

K- 6. Kentucky State Dept. of Health
Division of Laboratories
520 S. Third Street
Louisville 2, Ky.

K- 7. Kern County Health Dept.
P. O. Box 997
Bakersfield, Calif.

K- 8. Kettering Laboratory, University of Cincinnati
Dept. of Preventive Medicine & Industrial Health
Eden & Bethesda Avenues
Cincinnati 19, Ohio

K- 9. Knoxville Dept. of Public Works
Div. of Smoke Regulation and Boiler Inspection
City Hall Park
Knoxville 9, Tenn.

L- 1. Lansing Air Pollution Board
City Hall, Michigan Avenue
Lansing, Mich.

L- 2. Lawton Public Health Service
Indian Hospital, Adm. Ass't.
Lawton, Okla.

L- 3. Lehigh Valley Air Pollution Control
Municipal Bldg.
Northampton, Pa.

L- 4. Lehman Caves Nat'l. Monument
Baker, Nev.

L- 5. Lincoln City-County Health Dept.
Division of Sanitation
935 "R" Street
Lincoln 8, Nebraska

L- 6. Long Beach Dept. of Public Health
Director of Laboratories
2655 Pine Avenue
Long Beach 6, Calif.

L- 7. Lorain City
Board of Health
Dept. of Water & Sewers
Lorain, Ohio

L- 8. Los Angeles County Air Pollution Control District
434 South San Pedro Street
Los Angeles 13, Calif.

L- 9. Los Angeles State and County Arboretum
301 N. Bladwin Avenue
Arcadia, Calif.

L-10. Louisiana State Dept. of Health
Preventive Medicine
P. O. Box 630
New Orleans 7, La.

L-11. Lowell Board of Health
Kirk Street
Lowell, Mass.

L-12. Lynn Dept. of Public Health
City Hall
Lynn, Mass.

M- 1. Macon-Bibb County Health Dept.
Director of Environmental Health
770 Hemlock Street
Macon, Ga.

M- 2. Madison Dept. of Public Health
Room 507, City-County Bldg.
202 Monono Avenue
Madison 9, Wis.

M- 3. Maine Dept. of Health and Welfare
Division of Sanitary Engineering
State House
Augusta, Me.

M- 4. Maine Dept. of Health & Welfare
Division of Sanitary Engineering
178 Middle Street
Portland, Me.

M- 5. Manchester City Health Officer
Franklin & Pleasant Streets
Manchester, N. H.

M- 6. Maricopa County Manager
Phoenix, Ariz.

M- 7. Maryland State Dept. of Health
Division of Occupational Health
301 W. Preston Street
Baltimore 1, Md.

M- 8. Maryland State Dept of Health
Division of Industrial Health
2411 North Charles
Baltimore 18, Md.

M- 9. Massachusetts State Dept. of Health
Division of Sanitary Engineering
546 State House
Boston 33, Mass.

M-10. Massachusetts Dept. of Public Health
Division of Sanitary Engineering
Air Pollution-Radiological Health Section
Room 511, State House
Boston 33, Mass.

M-11. Massachusetts Dept. of Public Health
Division of Sanitary Engineering
37 Shattuck Street
Lawrence, Mass.

M-12. Memphis Dept. of Public Service
97 North Third Street
Memphis, Tenn.

M-13. Memphis-Shelby County Health Dept.
Bureau of Sanitary Engineering
879 Madison Avenue
Memphis 3, Tenn.

M-14. Merced County Health Department
P. O. Box 1350
Merced, Calif.

M-15. Miami Building Dept.
P. O. Box 708, Coconut Grove Station
Miami 33, Fla.

M-16. Michigan State University
Mechanical Engineering Dept.
East Lansing, Mich.

M-17. Michigan Dept. of Conservation
Region 3, Headquarters
400 Kalamazoo Plaza
Lansing 33, Mich.

M-18. Michigan State Dept. of Health
Division of Occupational Health
Old DeWitt Road
Lansing 4, Michigan

M-19. Michigan Dept. of Health, District 2
City Hall
Saginaw, Mich.

M-20. Milwaukee Dept. of Smoke Regulation
Room 10, Court House
Milwaukee 3, Wis.

M-21. Minneapolis Dept. of Bldg.
Air Pollution Section
301-M City Hall
Minneapolis 15, Minn.

M-22. Minnesota State Dept. of Health
Div. of Environmental Sanitation
Campus, Univ. of Minnesota
Minneapolis 14, Minn.

M-23. Mississippi Gulf Coast Research Lab.
Ocean Springs, Miss.

M-24. Mississippi State Board of Health
Div. of Industrial Hygiene & Factory Inspection
Old Capitol Bldg.
Jackson 5, Miss.

M-25. Missouri Dept. of Public Health
Industrial Hygiene Section
State Office Building
Jefferson City, Mo.

M-26. Mobile County Health Dept.
Mobile, Ala.

M-27. Monroe County Health Dept.
Sanitarian
Box 32
Key West, Fla.

M-28. Montana State Board of Health
Division of Disease Control
Helena, Mont.

M-29. Monterey County Health Dept.
154 West Alisal Street
Salinas, Calif.

M-30. Montgomery County Health Dept.
Division of Sanitary Engineering
515 West Jefferson Davis Avenue
Montgomery, Ala.

M-31. McKee, H. C. and Bieberdorf, F. W., "Vegetation Symptoms as a Measure of Air Pollution," J. Air Pollution Control Assoc., 10, 222, (1960).

M-32. McKee, H. C. and Rollwitz, W. L., "Improved Titrilog Sensitivity, II, Field Performance and Evaluation," J. Air Pollution Control Assoc., 8, 338 (1959).

M-33. McKee, H. C., "The Houston Air Pollution Survey," Proceedings 51st Annual Meeting, Air Pollution Control Assoc., Philadelphia, Pa., May, 1958.

N- 1. Napa County Health Dept.
2281 Elm Street
Napa, Calif.

N- 2. Nashville, Dept. of Smoke Regulation
302 City Hall, City-County Bldg.
Nashville 3, Tenn.

N- 3. National Air Sampling Network
U. S. Public Health Service
Robert A. Taft Sanitary Engineering Center
4676 Columbia Parkway
Cincinnati 26, Ohio

N- 4. National Park Service
Perry's Victory & Intl. Peace
Mem. Nat'l. Monument
Put-in-Bay, Ohio

N- 5. National Park Service
Glacier Nat'l. Park
West Glacier, Mont.

N- 6. Nat'l. Park Service
Mesa Verde Nat'l. Park, Colo.

N- 7. Neah Bay Air Force Station
Neah Bay, Wash.

N- 8. Nebraska Nat'l. Forests
Room 315, P. O. Bldg.
Lincoln, Nebr.

N- 9. Nebraska State Dept. of Health
Div. of Environmental Sanitation
1010 State Capitol
Lincoln 9, Nebr.

N-10. Nebraska State Dept. of Public Safety
Smoke Abatement Division
608 City Hall, 18th and Farnam Streets
Omaha 2, Nebr.

N-11. Nevada State Dept. of Health
Carson City, Nev.

N-12. Nevada State Dept. of Health
755 Ryland Street
Reno, Nev.

N-13. Newark Dept. of Health
Bureau of Industrial Sanitation
Room 406, City Hall
Newark 2, N. J.

N-14. New Bedford Board of Health
New Bedford, Mass.

N-15. New Britain City Health Dept.
City Hall
New Britain, Conn.

N-16. New Hampshire State Health Dept.
Di of Sanitary Engineering
St House
Concord, N. H.

N-17. New Haven Health Dept.
Bureau of Environmental Sanitation
161 Church Street
New Haven, Conn.

N-18. New Jersey State Dept. of Health
Principal Public Health Eng.
State House
Trenton 7, N. J.

N-19. New Jersey State Health Dept.
Div. of Adult and Occupational Health
17 West State Street
Trenton, N. J.

N-20. New Mexico State Dept. of Public Health
Div. of Occupational Health
Santa Fe, N. Mex.

N-21. New York Dept. of Air Pollution Control
15 Park Row
New York 38, N. Y.

N-22. New York State Dept. of Health
Air Pollution Control Board
84 Holland Avenue
Albany 8, N. Y.

N-23. Niagara Falls City Health Dept.
Div. of Air Pollution Control
City Hall-Main Street
Niagara Falls, N. Y.

N-24. Norfolk City Health Dept.
512 East Plume Street
Norfolk, Va.

N-25. North Carolina State Board of Health
Sanitary Engineering Division
Raleigh, N. C.

N-26. North Dakota State Dept. of Pub. Health
Div. of General Sanitation
Capitol Bldg.
Bismark, N. Dak.

O- 1. Oden Ranger Station
Oden, Ark.

O- 2. Ohio State Dept. of Health
Div. of Industrial Hygiene
306 Ohio Dept. Bldg.
Columbus 15, Ohio

O- 3. Oklahoma City, City-County Health Dept.
Div. of Sanitation
Municipal Bldg.
Oklahoma City, Okla.

O- 4. Oklahoma State Dept. of Public Health
Div. of Sanitary Engineering
3400 North Eastern
Oklahoma City 5, Okla.

O- 5. Orange County Air Pollution Control District
9846 South Harbor Blvd.
Anaheim, Calif.

O- 6. Orange County Health Dept.
Sanitation Director
Orlando, Florida

O- 7. Oregon State Sanitary Authority
Air Pollution Section
1400 S. W. Fifth Avenue
Portland, Oreg.

O- 8. Omaha Smoke Abate Div.
Dept. of Public Safety
608 City Hall
Omaha 2, Nebr.

P- 1. Park Manager, Sleeper State Park
Caseville, Mich.

P- 2. Park Supt.
Cook State Forest
Cooksburg, Pa.

P- 3. Paterson Board of Health
Municipal Health Bldg.
Mill & Passaic Streets
Paterson, N. J.

P- 4. Penn. Dept. of Forests & Waters
P. O. Box 471
Clarion, Pa.

P- 5. Pennsylvania State Dept. of Health
Air Pollution Control Section
Div. of Industrial Hygiene
P. O. Box 90
Harrisburg, Pa.

P- 6. Pennsylvania Dept. of Health
Environmental Health Services
State Capitol (S. Office Bldg.)
Harrisburg, Pa.

P- 7. Pennsylvania State Health Dept.
201 Carnegie Bldg.
Johnstown, Pa.

P- 8. Pennsylvania Dept. of Health
District Medical Director
P. O. Box 1518
Lancaster, Pa.

P- 9. Philadelphia Dept. of Public Health
Air Pollution Control Section
Room 519, City Hall Annex
Philadelphia 7, Pa.

P-10. Pennsylvania State Health Dept.
Regional Medical Office
P. O. Box 3247
Reading, Pa.

P-11. Pennsylvania Dept. of Health
Office of Industrial Hygiene
71 North Franklin Street
Wilkes-Barre, Pa.

P-12. Peoria City Division of Inspections
City Hall, 419 Fulton Street
Peoria, Ill.

P-13. See Page 9

P-14. Philmont Scout Ranch
Cimarron, N. Mex.

P-15. Port Lavaca-Calhoun County San. Prog.
P. O. Box 806
Port Lavaca, Tex.

P-16. Providence Air Pollution Division
112 Union Street
Providence 3, R. I.

P-17. Puerto Rico Dept. of Health
Bureau of Environmental Sanitation
San Juan, P. R.

P-18. Pulaski County Health Dept.
Somerset, Ky.

Q- 1. Quincy Health Department
1120 Hancock Street
Quincy, Mass.

R- 1. Racine City Health Department
630 Washington Avenue
Racine, Wis.

R- 2. Rhode Island Dept. of Agriculture and Conservation
Division of Forests, Veterans Mem. Bldg.
83 Park Street
Providence 2, R. I.

R- 3. Rhode Island State Dept. of Health
Div. of Sanitary Engineering
Providence 2, R. I.

R- 4. Richmond County Dept. of Health
Augusta, Ga.

R- 5. Richmond Dept. of Public Safety
Div. of Air Pollution Control
Mosque Bldg., Laurel & Main Streets
Richmond 20, Va.

R- 6. Riverside County Air Pollution Control District
3972 Main Street
Riverside, Calif.

R- 7. Roanoke Dept. of Air Pollution Control
209 Church Avenue, S. W.
Roanoke, Va.

R- 8. Rochester Dept. of Health
Director Environmental Sanitation
44 Marshall Street
Rochester, N. Y.

R- 9. Rochester Dept. of Public Safety
Bureau of Buildings
183 Main Street, East
Rochester 4, N. Y.

R-10. Rockford Dept. of Public Health
Eighth Floor, City Hall
Rockford, Ill.

R-11. Rogers, L. H., "Nitric Oxide and Nitrogen Dioxide in the Los Angeles Atmosphere," J. Air Pollution Control Assoc., 8, 124 (1958).

S- 1. Sacramento County Air Pollution Control District
2221 Stockton Street
Sacramento, Calif.

S- 2. Saginaw City Health Dept.
Sanitation Division
City Hall
Saginaw, Mich.

S- 3. St. Louis County Health Dept.
Clayton, Mo.

S- 4. St. Louis Dept. of Public Welfare
Industrial Hygiene Section
62 Municipal Courts Bldg.
St. Louis 3, Mo.

S- 5. St. Paul Dept. of Public Utilities
Air Pollution Control Section
100 East 10th Street
St. Paul 3, Minn.

S- 6. St. Tammany Parish Health Unit
333 Bouscaren Street
Slidell, La.

S- 7. St. Louis Division of Smoke Regulation
419 City Hall
St. Louis 3, Mo.

S- 8. Salt Lake City Health Department
115 South State Street
Salt Lake City 11, Utah

S- 9. San Antonio City Health Dept.
128 W. Commerce Street
San Antonio, Tex.

S-10. San Bernardino Air Pollution Control District
172 West Court Street
San Bernardino, Calif.

S-11. San Diego Dept. of Public Health
Bureau of Industrial Hygiene
Air Pollution Control
3330 Congress Street
San Diego 10, Calif.

S-12. Sandusky City-County Health Dept.
Air Pollution Control Section
City Bldg.
Sandusky, Ohio

S-13. San Francisco Health Dept.
Director of Sanitation
101 Grove Street
San Francisco, Calif.

S-14. San Joaquin Local Health Dist.
130 South American Street
Stockton, Calif.

S-15. Sankaty Head Light Station
U. S. Coast Guard
Siasconset, Mass.

S-16. Santa Barbara City Health Dept.
2 De La Guerra Plaza
Santa Barbara, Calif.

S-17. Santa Clara County Health Dept.
Industrial Hygiene Engineer
2220 Moorpark Avenue
San Jose 28, Calif.

S-18. Santa Cruz County Health Dept.
1060 Emeline
Santa Cruz, Calif.

S-19. Savannah Tech. Dev. Labs.
Communicable Disease Center
P. O. Box 769
Savannah, Ga.

S-20. Schenectady City Health Dept.
City Hall, 105 Jay Street
Schenectady, N. Y.

S-21. Seattle Dept. of Engineering
Supt. of Sanitary Operations
City-County Bldg.
Seattle, Wash.

S-22. Shasta County Health Dept.
P. O. Box 228
Redding, Calif.

S-23. Shenandoah National Park
Chief Park Ranger
Luray, Va.

S-24. Sioux Falls Sanitation Supt.
City Hall
Sioux Falls, S. Dak.

S-25. Somerville Board of Health
City Hall
Somerville, Mass.

S-26. Sonoma County Health Dept.
3324 Chanata Road
Santa Rosa, Calif.

S-27. South Bend Dept. of Engineering
City Hall
South Bend, Ind.

S-28. South Carolina State Board of Health
Div. of Sanitary Engineering
Wade Hampton Office Bldg.
Columbia 10, S. C.

S-29. South Dakota State Board of Health
Div. of Sanitary Engineering
Pierre, S. Dak.

S-30. Southern Research Institute
2000 Ninth Avenue, South
Birmingham 5, Ala.

S-31. Southwest Research Institute
8500 Culebra Road
San Antonio, Tex.

S-32. Spokane City Health Dept.
City Hall
Spokane, Wash.

S-33. Springfield Dept. of Public Health
Division of Sanitary Engineering
State Office Bldg., 400 Spring Street, S.
Springfield, Ill.

S-34. Springfield Dept. of Public Health and Safety
Springfield Fire Department
Springfield, Ill.

S-35. Springfield City Health Dept.
Division of Environmental Health
1414 State Street
Soringfield 9, Mass.

S-36. Springfield Health Commissioner
City Bldg.
Springfield, Ohio

S-37. Stamford City Health Dept.
510 Summer Street
Stamford, Conn.

S-38. Stanislaus County Health Department
801 Scenic Drive
Modesto, Calif.

S-39. Smoke and Air Pollution, Interstate Sanitation Commission, 10 Columbus Circle, New York 19, N. Y., (1958).

S-40. Superior National Forest
U. S. Forest Service
Federal Building
Duluth, Minn.

S-41. Superior National Forest
Grand Marais, Minn.

S-42. See B-16

S-43. Syracuse Dept. of Engineering
Division of Smoke & Air Pollution Control
400 City Hall
Syracuse 2, N. Y.

S-44. Smith, R. G., MacEwen, J. D., and Barrow, R. E., "The Occurrence of Phenols in Air and Combustion Products," J.A.I.H.A., 20, 152, (1959).

T- 1. Tacoma Dept. of Public Works
Air Pollution Control Engineer
City Hall
Tacoma, Wash.

T- 2. Tampa Dept. of Public Works
Bureau of Sanitary Sewers
Sixth Floor, City Hall
Tampa, Fla.

T- 3. Teepee Ranger Station
Custer, S. Dak.

T- 4. Tennessee State Dept. of Public Health
Industrial Hygiene Section
420 Sixth Avenue, North
Nashville 3, Tenn.

T- 5. Terre Haute Dept. of Smoke Supervision and Inspection
City Hall
Terre Haute, Ind.

T- 6. Texas A. & M. College System
Dept. of Plant Physiology and Pathology
College Station, Tex.

T- 7. Texas State Dept. of Health
Division of Occupational Health
510 East Fifth Street
Austin 14, Tex.

T- 8. Toledo Division of Inspections
Air Pollution Inspector
Water Department-Bldg., 565 North Erie Street
Toledo 2, Ohio

T- 9. Topeka City-County Health Department
Sanitation Division
Municipal Bldg.
Topeka, Kans.

T-10. Trinidad Head Light Station
Trinidad, Calif.

T-11. Tulare County Health Dept.
Mineral Blvd. and King Blvd.
Visalia, Calif.

T-12. Tulsa City-County Health Dept.
Division of Sanitation
4616 East 15th Street
Tulsa, Okla.

T-13. Turkey Run State Park
Marshall, Ind.

T-14. Thomas, M. D. and St. John, G. A., "Nitric Oxide and Nitrogen Dioxide Concentrations Near the Ground at Menlo Park, California," J. Air Pollution Control Assoc., 8, 234, (1958).

T-15. Tebbens, B. D., "Air Pollution Trends - San Francisco Bay Area," A.M.A. Arch. Ind. Health, 20, 155 (1959).

T-16. The Air Over Louisville, Community Air Pollution Program, Robert A. Taft Sanitary Engineering Center, Cincinnati 26, Ohio.

U- 1. U. S. Coast Guard
Tibbets Point LTSTA
Box 581
Cape Vincent, N. Y.

U- 2. U. S. Department of the Interior
Fish and Wildlife Service
Lake Darling
Farholm, N. Dak.

U- 3. U. S. Department of the Interior
Fish Cultural Station
Berlin, N. H.

U- 4. U. S. Forest Service
Bessey Nursery
Halsey, Nebr.

U- 5. U. S. Weather Bureau
Route 2, Box 447
Scottsdale, Ariz.

U- 6. Utah State Dept. of Health
Bureau of Sanitation
130 State Capitol Bldg.
Salt Lake City, Utah

U- 7. Utica City Health Dept.
406 Elizabeth Street
Utica, N. Y.

U- 8. University of California
Attention: B. D. Tebbens
Berkeley , Calif.

U- 9. University of California
Engineering Department
405 Hilgard
Los Angeles 25, Calif.

U-10. University of California, Riverside
Air Pollution Research
Riverside, Calif.

U-11. University of Florida
College of Engineering
Air Pollution Research Laboratory
Gainesville, Florida

U-12. U. S. Coast Guard
Trinidad Head, Calif.

U-13. U. S. Coast Guard
San Francisco (Farallon Island, S. E.)
California

U-14. U. S. Coast Guard
Piedras Blancas Light Station
San Luis Obispo, Calif.

V- 1. Vermont State Dept. of Health
Bureau of Environmental Sanitation
115 Chalchester Avenue
Burlington, Vt.

V- 2. Veterans Administration Hospital
Utilities Maintenance Supt.
East Orange, N. J.

V- 3. Virginia State Health Dept.
Bureau of Industrial Hygiene
State Office Building
Richmond, Va.

W- 1. Waco-McLennan County Health Dept.
695 Columbus Avenue
Waco, Tex.

W- 2. Washington State Dept. of Health
Air Sanitation & Radiation Control Section
1508 Smith Tower
Seattle 4, Wash.

W- 4. Washington State Univ.
Division of Industrial Research
Pullman, Wash.

W- 5. Waterbury City Dept. of Health
City Hall
Waterbury, Conn.

W- 6. Wayne County Dept. of Health
Division of Engineering & Sanitation
Air Pollution Control Section
Eloise, Mich.

W- 7. Westchester County Dept. of Health
County Office Bldg., Martine Avenue
White Plains, N. Y.

W- 8. W. Hatchett Chandler
Ft. Morgan Route
Gulf Shores, Ala.

W- 9. West Virginia State Dept. of Health
Bureau of Industrial Hygiene
Charleston 5, W. Va.

W-10. Whatcom County Health Dept.
P. O. Box 1078
Bellingham, Wash.

W-11. Wheeling City Air Pollution Control Dept.
City Building, 1507 Main Street
Wheeling, W. Va.

W-12. Wichita City-County Health Dept.
1900 East Ninth
Wichita 2, Kans.

W-13. Wigwam Reservoir Caretaker
Thomaston, Conn

W-14. Wilmington City Health Dept.
1213 Walnut Street
Wilmington, Del.

W-15. Wisconsin Conservation Dept.
Forest and Park Division
State Office Building
Madison 2, Wis.

W-16. Wisconsin Peninsula State Park
Fish Creek, Wis.

W-17. Wisconsin State Board of Health
Division of Industrial Hygiene
Madison 2, Wis.

W-18. Worcester County Health Department
Deputy State Health Officer
Pocomoke, Md.

W-19. Worcester Dept. of Public Health
Division of Environmental Health
City Hall
Worcester, Mass.

W-20. Wyoming State Dept. of Health
Division of Environmental Sanitation
State Capitol
Cheyenne, Wyo.

Y- 1. Yellowstone National Park
Park Sanitary Engineer
Yellowstone Park, Wyo.

Y- 2. Yolo County Health Dept.
P. O. Box 532
Woodland, Calif.

Y- 3. Yonkers Dept. of Public Health
Division of Environmental Sanitation
Health Center Bldg.
Yonkers, N. Y.

Y- 4. York Dept. of Health
City Hall, 50 W. King Street
York, Pa.

Y- 5. Youngstown Air Pollution Control Section
Division of Engineering, City Hall
Boardman & Phelps
Youngstown 3, Ohio

Z- 1. Zanesville Division of Smoke Regulation
5, City Hall
Zanesville, Ohio

Z- 2. Zeidburg, L. D., Schueneman, J. J., Humphrey, P. A., and Prindle, R. A. Air Pollution and Health: General Description of a Study in Nashville, Tennessee. Paper presented at the 53rd annual meeting of the air Pollut. Control Assoc., Cincinnati, Ohio, May 23-26, 1960.

APPENDIX D

National Air Sampling Network Index

NASN - 1 Total weight and benzene solubles were determined for all samples.

NASN - 2 Total weight, benzene solubles, and beta radioactivity were determined for all samples.

NASN - 2A Total weight, benzene solubles, beta radioactivity, and reflectance were determined for all samples.

NASN - 3 Total weight, benzene solubles, beta radioactivity, nitrates, and sulfates were determined for all samples.

NASN - 3A Total weight, benzene solubles, nitrates, and sulfates were determined for all samples, and beta radioactivity on selected samples.

NASN - 4 Total weight, benzene solubles, beta radioactivity, chlorides, nitrates, and sulfates were determined for all samples.

NASN - 5 Total weight, benzene solubles, beta radioactivity, nitrates, sulfates, and the following metals were determined for all samples: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 5A Total weight, benzene solubles, nitrates, sulfates, and the following metals were determined for all samples: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn. Beta radioactivity was determined only on selected samples.

NASN - 6 Total weight and benzene solubles were determined for all samples and beta radioactivity only on selected samples.

NASN - 7 Total weight, benzene solubles were determined for all samples. Beta radioactivity, chlorides, nitrates, sulfates, and the following metals were determined only on selected samples: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 8 Total weight, benzene solubles, and beta radioactivity were determined in all samples. The heaviest sample in each three-month period was analyzed for nitrates and sulfates.

NASN - 8A Total weight, benzene solubles were determined for all samples and beta radioactivity only on selected samples. The heaviest sample in each three-month period was analyzed for nitrates and sulfates.

NASN - 9 Total weight, benzene solubles, and beta radioactivity were determined for all samples. The heaviest sample in each three-month period was analyzed for nitrates, sulfates, and the following metals: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 9A Total weight, and benzene solubles were determined for all samples and beta radioactivity only on selected samples. The heaviest sample in each three-month period was analyzed for nitrates, sulfates, and the following metals: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 10 Total weight, benzene solubles, and beta radioactivity were determined for all samples. The heaviest sample and a composite of all samples collected in each three-month period were analyzed for nitrates, sulfates, and the following metals: Sb, Be, Bi, Cr, Co, Cu, Fe, Cd, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 10A Total weight, benzene solubles, beta radioactivity, and reflectance were determined for all samples. The heaviest sample and a composite of all samples collected in each three-month period were analyzed for nitrates, sulfates, and the following metals: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 10B Total weight and benzene solubles were determined for all samples and beta radioactivity only on selected samples. The heaviest sample and a composite of all samples collected in each three-month period were analyzed for nitrates, sulfates, and the following metals: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 11 Total weight and benzene solubles were determined for all samples. Chlorides, nitrates, sulfates, and the following metals were determined only on selected samples: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 12 Total weight, benzene solubles, beta radioactivity, nitrates, and sulfates were determined for all samples. The heaviest sample and a composite of all samples collected in each three-month period were analyzed and the following metals: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 12A Total weight, benzene solubles, nitrates, and sulfates were determined for all samples, and beta radioactivity only in selected samples. The heaviest sample and a composite of all samples collected in each three-month period were analyzed for the following metals: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

NASN - 13 Total weight, benzene solubles, beta radioactivity, nitrates, and sulfates, were determined for all samples. The heaviest sample in each three-month period was analyzed for the following metals: Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.

APPENDIX E

List of Abbreviations

Abbreviations	Description
Ag.	Agriculture
A.P.	Air Pollution
A.P.B.	Air Pollution Board
A.P.C.	Air Pollution Control
A.P.C.B.	Air Pollution Control Board
A.P.C.D.	Air Pollution Control District
B.A.P.	Bureau of Air Pollution
B.A.P.C.	Bureau of Air Pollution Control
B.A.P.C.B.I.	Bureau of Air Pollution Control and Boiler Inspection
B.A.P.C.H.I.	Bureau of Air Pollution Control and Heating Inspection
B.H.	Board of Health
Bldg.	Building
B.S.A.	Boy Scouts of America
B.S.R.B.I.	Bureau of Smoke Regulation and Boiler Inspection
C.	County
Cal. Tech.	California Institute of Technology
C.D.C.L.	Communicable Disease Center Laboratory, U. S. Public Health Service
C.H.D.	County Health Department
Comm.	Commission
C.S.P.	County Sanitation Program

Abbreviations	Description
D.A.P.C.	Department of Air Pollution Control
Dept.	Department
D.H.	Department of Health
Div.	Division
D.P.H.	Department of Public Health
D.S.A.P.C.	Division of Stream and Air Pollution Control
D.S.R.I.	Division of Smoke Regulation and Inspection
Engr.	Engineering
H. D.	Health Department
I.H.F.	Industrial Hygiene Foundation
Inst.	Instantaneous
Lab.	Laboratory
M.S.A.	Mine Safety Appliance
Mt.	Mountain
Nat'l.	National
N.B.S.	National Bureau of Standards
N.U.	Non-Urban Station
N.Y.CityD.A.P.C.	New York City Department of Air Pollution Control
N.Y.S.A.P.C.B.	New York State Air Pollution Control Board

Abbreviations	Description
P.H.S.	Public Health Service
Reg.	Regulation
Res.	Research
R.I.	Research Institute
Rov'g.	Roving
S.A.P.S.	State Air Pollution Section
S.B.H.	State Board of Health
S.D.H.	State Department of Health
S.D.P.H.	State Department of Public Health
S.H.D.	State Health Department
Sol.	Soluble
St.	Saint
Univ.	University
U.S.	United States
U.S.C.G.	United States Coast Guard
U.S.D.H.E.W.	United States Department of Health, Education, and Welfare
U.S.W.B.	United States Weather Bureau
Var.	Variable

SAMPLE CATEGORY INDEX

ACETYLENE
Kentucky
Louisville----------75

ACID GASES
Ohio
Cleveland----------122

ACIDITY, DUSTFALL
California
Azusa----------12
Burbank----------13
Dominguez----------15
El Monte----------16
Los Angeles----------20
North Hollywood----------23
Pico-Rivera----------25
Riverside----------34
South Gate----------27
Sun Valley----------27
Temple City----------28
Torrance----------29
Van Nuys----------30
Vernon----------30
New York
New York----------113

ALDEHYDES
California
Azusa----------12
Burbank----------13
Dominguez----------14
El Segundo----------17
Lennox----------19
Los Angeles----------20
Pasadena----------23
Pico-Rivera----------25
Torrance----------28
Vernon----------30

ALDEHYDES (Cont'd)
Hawaii
Honolulu----------62
Kentucky
Louisville----------73
New York
New York----------112
Texas
El Paso----------152
Houston----------154

ALUMINUM (Al) DUSTFALL
Texas
El Paso----------153

AMMONIA
New York
New York----------112
Texas
Houston----------154

AMMONIUM, DUSTFALL
New York
New York----------113

ANTIMONY (Sb) SUSPENDED PARTICULATE (See "Metals", Suspended Particulate)

ARSENIC (As) SUSPENDED PARTICULATE
California
Berkeley----------8
Mt. Hamilton----------42
San Diego----------38

ASH DUSTFALL
California
Anaheim----------33

ASH DUSTFALL (Cont'd)
California
Azusa----------12
Burbank----------13
Dominguez----------15
El Monte----------16
Los Angeles----------20
North Hollywood----------23
Pico-Rivera----------25
Santa Cruz (county)----43
South Gate----------27
Sun Valley----------27
Temple City----------28
Torrance----------29
Van Nuys----------30
Vernon----------30
New York
New York----------113
Rochester----------111
Ohio
Cincinnati----------124
Cleveland----------122
Sandusky----------123
Tennessee
Chattanooga----------149
Nashville----------148
Washington
Seattle----------164
Spokane----------165
Vancouver----------164
Wisconsin
Green Bay----------168
Milwaukee----------168

ASH, SUSPENDED PARTICULATE
New York
New York----------114

BENZENE SOLUBLE,
DUSTFALL
Tennessee
Nashville----------148

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
Alabama
Bessemer----------1
Birmingham----------1
Ft. Morgan (N.U.)--------1
Mobile----------1
Montgomery----------1
Alaska
Anchorage----------3
Pt. Woronzof (Cook Inlet) (N.U.)----------3
Arizona
Grand Canyon Nat'l. Park (N.U.)----------4
Maricopa (County) (N.U.)----------4
Phoenix----------4
Arkansas
Little Rock----------6
Quanchita Nat'l. Forest (N.U.)----------6
California
Berkeley----------7,8
Burbank----------14
Crescent City----------10
El Cajon----------37
Fresno----------10
Glendale----------18
Long Beach----------20
Los Angeles----------22
Mt. Hamilton----------42
National City----------37
Oakland----------8
Pasadena----------24

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
California (Cont'd.)
Piedras Blancas Light Station----------41
Richmond----------9
Sacramento----------35
San Bernardino---------36
San Diego----------38
San Francisco-------39,40
San Jose----------43
San Leandro----------8
San Nicolas Island-----45
Santa Cruz----------43
Santa Cruz (County)----43
Stockton----------40,41
Trinidad Head (N.U.)---11
Watsonville----------44
Colorado
Denver----------50
Mesa Verde Nat'l Park--50 (N.U.)
Connecticut
Bridgeport----------51
Hartford----------51
New Britain----------52
New Haven----------52
Stamford----------51
Waterbury----------53
Wigwam Reservoir (N.U.)52
Delaware
Bombay Hook Nat'l. Wildlife Refuge (N.U.)-55
Wilmington----------55
District of Columbia
Washington----------56
Florida
Florida Keys (N.U.)----57
Jacksonville----------57

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
Florida (Cont'd)
Miami----------57
Orlando----------58
Tampa----------57
Tampa Airport----------57
Georgia
Atlanta----------59
Augusta----------60
Columbus----------59
Macon----------59
Oatland Island (N.U.)---59
Savannah----------59
Hawaii
Barber's Point (N.U.)---63
Honolulu----------62,63
Idaho
Boise----------65
Craters of the Moon Nat'l. Monument (N.U.)--65
Illinois
Chicago----------66
East St. Louis----------67
Lake Springfield (N.U.)-67
Peoria----------66
Rockford----------67
Indiana
East Chicago----------68
Evansville----------69
Ft. Wayne----------68
Gary----------68
Hammond----------68
Indianapolis----------69
South Bend----------69
Terre Haute----------70
Turkey Run State Park (N.U.)----------69

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
Iowa
Backbone State Park (N.U.)----71
Davenport----71
Des Moines----71
Kansas
Hays (N.U.)----72
Kansas City----72
Topeka----72
Wichita----72
Kentucky
Cumberland Falls State Park (N.U.)----75
Louisville----74, 75
Louisiana
Baton Rouge----77
New Orleans----77
St. Tammany Parish (N.U.)----77
Shreveport----77
Tangipahoa Parish (N.U.)----77
Maine
Arcadia Nat'l. Park (N.U.)----79
Portland----79
Maryland
Baltimore----80
Edgemeer----81
Pocomoke City----82
Solomons Island (N.U.)--81
Westminster----81
Massachusetts
Boston----90
Braintree----88
Brockton----89
Cambridge----86

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
Everett----87
Fall River----84
Lawrence----85
Lowell----87
Lynn----86
Mansfield----84
Milford----90
Nantucket Island (N.U.)---88
New Bedford----85
Pittsfield----84
Quincy----89
Somerville----87
Springfield----86
Weymouth----89
Worcester----91
Michigan
Dearborn----94
Detroit----95
Flint----93
Grand Rapids----94
Jackson----93
Kalamazoo----93
Lansing----93
Saginaw----94
Sleeper State Park (N.U.)----93
Minnesota
Duluth----97
Minneapolis----97
St. Paul----97
Superior Nat'l. Forest (N.U.)----97
Mississippi
Jackson----98
Ocean Springs (N.U.)----98
Missouri
Breckenridge----99

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
Missouri (Cont'd.)
Brentwood----99
Kansas City----99
Missouri State Forest (N.U.)----100
St. Louis----99
Montana
Glacier Nat'l. Park (N.U.)----101
Helena----101
Nebraska
Lincoln----103
Nebraska Nat'l. Forest (N.U.)----103
Omaha----103
Nevada
Las Vegas----104
Lehman Caves Nat'l. Monument (N.U.)----104
New Hampshire
Manchester----105
White Mountain Nat'l. Forest (N.U.)----105
New Jersey
Atlantic City----106
Bayonne----107
Camden----106
Cape May (N.U.)----106
East Orange----106
Elizabeth----108
Jersey City----107
Lakehurst----107
Newark----106
Paterson----108
Paulsboro----106
Perth Amboy----107
Trenton----107

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
New Mexico
Albuquerque----------109
Philmont Scout Ranch
(N.U.)----------109
New York
Albany----------110
Binghamton----------110
Buffalo----------111
Cape Vincent (N.U.)----111
Elmira----------111
Glen Cove----------112
Massena----------116
New York----------114,115
New Rochelle----------117
Rochester----------112
Schenectady----------116
Syracuse----------115
Troy----------116
Utica----------115
Yonkers----------117
North Carolina
Asheville----------119
Cape Hatteras (N.U.)---119
Charlotte----------119
Greensboro----------119
Raleigh----------120
Winston-Salem----------119
North Dakota
Bismark----------121
Upper Souris Nat'l.
Wildlife Refuge (N.U.)-121
Ohio
Akron----------128
Canton----------128
Cincinnati----------125
Cleveland----------122
Columbus----------124

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
Ohio (Cont'd.)
Dayton----------127
Hamilton----------122
Lorain----------126
Perry Nat'l. Monument
(N.U.)----------128
St. Bernard----------126
Springfield----------122
Toledo----------126
Youngstown----------127
Oklahoma
Lawton (N.U.)----------130
Oklahoma City----------130
Tulsa----------130
Oregon
Cape Blanco (N.U.)-----131
Portland----------133
Pennsylvania
Allentown----------
Altoona----------137
Bristol----------137
Chester----------138
Cook State Forest
(N.U.)----------137
Donora----------134
Erie----------138
Harrisburg----------137
Homestead----------135
Johnstown----------137
Lancaster----------138
McKeesport----------135
Philadelphia----------140
Pittsburgh----------136
Reading----------136
Scranton----------138
Wilkes-Barre----------139
Williamsport----------139
York----------141

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
Puerto Rico
Loquillo Mountain
(N.U.)----------144
San Juan----------144
Rhode Island
Pine Hills Fire Tower
(N.U.)----------145
Providence----------145
South Carolina
Charleston----------146
Columbia----------146
Greenville----------146
Sand Hill Animal
Disease Laboratory
(N.U.)----------146
South Dakota
Black Hills Nat'l.
Forest (N.U.)----------147
Sioux Falls----------147
Tennessee
Chattanooga----------149
Ft. Donelson (N.U.)----150
Knoxville----------150
Memphis----------150
Nashville----------148,149
Texas
Austin----------157
Beaumont----------156
Bellaire----------154
Corpus Christi----------157
Dallas----------152
El Paso----------153
Ft. Worth----------157
Galveston----------154
Houston----------155,156
Port Lavaca (N.U.)-----152
San Antonio----------152
Texas City----------154
Waco----------156

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
Utah
Bryce-Canyon Nat'l.
Park (N.U.)----------159
Salt Lake City----------159
Vermont
Burlington----------160
Mt. Mansfield State
Park (N.U.)----------160
Virginia
Danville----------162
Hampton----------161
Norfolk----------162
Richmond----------161
Roanoke----------162
Shenandoah NatIl.
Park (N.U.)----------162
Washington
Bellingham----------166
Cape Flattery Air
Force Station (N.U.)----164
Seattle----------164
Spokane----------165
Tacoma----------165
Vancouver----------164
West Virginia
Charleston----------167
Charleston Airport------167
Holly River State
Park (N.U.)----------167
Huntington----------167
Wheeling----------167
Wisconsin
Green Bay----------168
Madison----------168
Milwaukee----------168
Penninsula State
Park (N.U.)----------168
Racine----------169

BENZENE SOLUBLE,
SUSPENDED PARTICULATE
(Cont'd.)
Wyoming
Cheyenne----------170
Yellowstone Nat'l.
Park (N.U.)----------170

BERYLLIUM (Be),
SUSPENDED PARTICULATE
(See also "Metals",
Suspended Particulate)
New York
New York----------114

BICARBONATES, DUSTFALL
California
Anaheim----------33

BISMUTH (Bi),
SUSPENDED PARTICULATE
(See also "Metals",
Suspended Particulate)
New York
New York----------114

BORON (B), SUSPENDED
PARTICULATE
New York
New York----------114

CADMIUM (Cd), SUSPENDED
PARTICULATE
(See also "Metals",
Suspended Particulate)
New York
New York----------114

CALCIUM (Ca) DUSTFALL
California
Anaheim----------33

CALCIUM (Ca) DUSTFALL
(Cont'd.)
New York
New York----------113
Texas
El Paso----------153

CALCIUM (Ca),
SUSPENDED PARTICULATE
Kentucky
Louisville----------75

CALCIUM CARBONATE,
DUSTFALL
California
Santa Cruz (County)-----43

CALCIUM OXIDE, DUSTFALL
Kentucky
Louisville----------73

CARBON, DUSTFALL
Ohio
Cleveland----------122

CARBON, SUSPENDED PARTICULATE
Tennessee
Chattanooga----------149

CARBON MONOXIDE
Arizona
Phoenix----------4
Tucson----------5
California
Artesia----------12
Azusa----------12
Berkeley----------7
Burbank----------13
Dominguez----------14
Downey----------16
Elmonte----------16

CARBON MONOXIDE (Cont'd.)
California (Cont'd.)
El Segundo----------17
Lennox----------19
Los Angeles----------20
Mira Loma Air Force Base----------34
Pasadena----------23
Pico-Rivera----------25
Pomona----------26
Reseda----------26
Riverside----------34
San Bernardino----------36
San Diego----------37
Stockton----------40
Torrance----------28
Vernon----------30
Hawaii
Honolulu----------62
New York
New York----------112
Ohio
Cincinnati----------124
Dayton----------127
Oregon
Eugene----------131
Portland----------132
Salem----------131
Pennsylvania
Philadelphia----------140
Pittsburgh----------135
Tennessee
Nashville----------148
Texas
El Paso----------152
Houston----------154

CHLORIDES
Kentucky
Louisville----------73

CHLORIDES (Cont'd.)
New York
New York----------113
Texas
Houston----------154

CHLORIDES, DUSTFALL
California
Anaheim----------33
Azusa----------12
Burbank----------13
Dominguez----------15
El Monte----------16
Los Angeles----------20
North Hollywood----------23
Pico-Rivera----------25
Riverside----------34
South Gate----------27
Sun Valley----------27
Temple City----------28
Torrance----------29
Van Nuys----------30
Vernon----------30
New York
New York----------113
Ohio
Columbus----------123
Texas
El Paso----------153

CHLORIDES, SUSPENDED PARTICULATE
Alaska
Point Woronzof (Cook Inlet) (N.U.)----------3
California
Crescent City----------10
Mt. Hamilton----------42
National City----------37
Pasadena----------24

CHLORIDES, SUSPENDED PARTICULATE (Cont'd.)
California (Cont'd.)
Piedras Blancas Light Station----------41
San Diego----------38
San Francisco--------39, 40
San Jose----------43
San Leandro----------8
San Nicolas Island-------46
Connecticut
Waterbury----------53
District of Columbia
Washington----------56
Georgia
Atlanta----------59
Illinois
East St. Louis----------67
Indiana
East Chicago----------68
Kentucky
Louisville----------75
Missouri
Kansas City----------99
St. Louis----------99
New Jersey
Camden----------106
Elizabeth----------108
Jersey City----------107
Lakehurst----------107
Paulsboro----------106
Perth Amboy----------107
Trenton----------107
New York
New York----------114
Ohio
Cincinnati----------125
St. Bernard----------126
Pennsylvania
Altoona----------137

CHLORIDES, SUSPENDED PARTICULATE (Cont'd.)
Pennsylvania (Cont'd.)
Bristol----------137
Chester----------138
Erie----------138
Philadelphia----------140
Pittsburgh----------136
Williamsport----------139
Tennessee
Chattanooga----------149
Texas
Houston----------156

CHLORINE
Texas
Houston----------154

CHLOROFORM SOLUBLE, DUSTFALL
Illinois
Chicago----------66

CHROMIUM (Cr) SUSPENDED PARTICULATE
(See also "Metals", Suspended Particulate)
California
Berkeley----------8
Mt. Hamilton----------42
San Diego----------38
New York
New York----------114

COBALT (Co), SUSPENDED PARTICULATE
(See also "Metals", Suspended Particulate)
New York
New York----------114

COMBUSTIBLES, DUSTFALL
California
Azusa----------12
Burbank----------13
Dominguez----------15
El Monte----------16
Los Angeles----------20
North Hollywood----------23
Pico-Rivera----------25
Santa Cruz----------43
Santa Cruz (County)----------43
South Gate----------27
Sun Valley----------27
Temple City----------28
Torrance----------29
Van Nuys----------30
Vernon----------30
Watsonville----------44
Kentucky
Louisville----------73
New York
Rochester----------111
Ohio
Cincinnati----------124
Tennessee
Chattanooga----------149
Nashville----------148
Washington
Seattle----------164
Spokane----------165
Vancouver----------164
Wisconsin
Green Bay----------168
Milwaukee----------168

COMBUSTIBLES, SUSPENDED PARTICULATE
Michigan
Detroit----------95

COPPER (Cu) SUSPENDED PARTICULATE
(See also "Metals", Suspended Particulate)
New York
New York----------114

CORROSION
Kentucky
Louisville----------73
Oklahoma
Tulsa----------130

DUSTFALL
California
Anaheim----------33
Azusa----------12
Berkeley----------7
Burbank----------13
Dominguez----------15
El Monte----------16
Los Angeles----------20
North Hollywood----------23
Pico-Rivera----------25
Riverside----------34
San Bernardino----------36
Santa Cruz----------43
South Gate----------27
Sun Valley----------27
Temple City----------28
Torrance----------29
Van Nuys----------30
Vernon----------30
Watsonville----------44
Connecticut
Hartford----------51
Middletown----------52
New Haven----------52
Illinois
Chicago----------66

DUSTFALL, (Cont'd.)
Kentucky
Louisville----------73
Maryland
Edgemeer----------80
Hagerstown----------81
Westminster----------81
Massachusetts
Boston----------90
Brockton----------89
Cambridge----------86
Everett----------86
Fall River----------84
Lawrence----------85
Lowell----------87
Lynn----------85
New Bedford----------85
Pittsfield----------84
Quincy----------89
Sommerville----------87
Springfield----------86
Waltham & Weston----------87
Worcester----------91
Michigan
Wayne (County)----------94
New York
New York----------113
Rochester----------111
Ohio
Akron----------128
Cincinnati----------124
Cleveland----------122
Columbus----------123
Dayton----------127
Sandusky----------123
Zanesville----------128
Oklahoma
Tulsa----------130
Oregon
Eugene----------131
Portland----------132
Salem----------132

DUSTFALL, (Cont'd.)
Pennsylvania
Ambridge----------136
Avalon----------134
Lebanon----------138
Lehigh----------139
Middleton----------137
New Kensington----------141
Oil City----------141
Philadelphia----------140
Pittsburgh----------135
Seward----------141
West Nanticope----------139
Tennessee
Chattanooga----------149
Nashville----------148
Texas
El Paso----------153
Virginia
Covington----------161
Washington
Seattle----------164
Spokane----------165
Vancouver----------164
Wisconsin
Green Bay----------168
Milwaukee----------168

ETHER SOLUBLE, SUSPENDED PARTICULATE
California
El Segundo----------18
Los Angeles----------22
Pasadena----------24
Vernon----------31

EYE IRRITATION PANEL
California
El Monte----------17
Los Angeles----------20
North Hollywood----------23
Pasadena----------23

EYE IRRITATION PANEL (Cont'd.)
California
Vernon----------30

FLUORIDES
California
Nichols----------9
Florida
Polk (County)----------58
Oregon
Portland----------132
The Dalles----------133
Texas
Houston----------155
Utah
Utah (County)----------159
Washington
Mead----------165
Northport----------166

GERMANIUM (Ge) SUSPENDED PARTICULATE
New York
New York----------114

HCl SOLUBLES, DUSTFALL
Wisconsin
Green Bay----------168

HYDROCARBONS
California
Azusa----------12
Burbank----------13
Dominguez----------15
El Segundo----------17
Lennox----------19
Los Angeles----------21
Pasadena----------23
Pico Rivera----------25
Torrance----------29
Vernon----------30

HYDROCARBONS (Cont'd.)
Hawaii
Honolulu----------62
New York
New York----------113
Texas
El Paso----------153
Houston----------155
Port Lavaca (N.U.)------152

HYDROGEN SULFIDE
California
Santa Clara (County)-----42
San Francisco----------39
Maryland
Baltimore----------80
Michigan
Detroit----------95
New York
New York----------113
Ohio
Lorain----------126
St. Bernard----------125
Pennsylvania
Avalon----------134
Pittsburgh----------135
Seward----------141
Texas
El Paso----------153
Houston----------155

INSOLUBLES, DUSTFALL
California
Azusa----------12
Anaheim----------33
Burbank----------13
Dominguez----------15
El Monte----------16
Los Angeles----------20
North Hollywood----------23

INSOLUBLES, DUSTFALL
(Cont'd.)
California (Cont'd.)
Pico-Rivera----------25
Riverside----------34
San Bernadino----------36
South Gate----------27
Sun Valley----------27
Temple City----------28
Torrance----------29
Van Nuys----------30
Vernon----------30
Connecticut
Hartford----------51
Middletown----------52
New Haven----------52
Illinois
Chicago----------66
Massachusetts
Boston----------90
Brockton----------89
Cambridge----------86
Everett----------86
Fall River----------84
Lawrence----------85
Lowell----------87
Lynn----------85
New Bedford----------85
Pittsfield----------84
Quincy----------89
Sommerville----------87
Springfield----------86
Waltham & Weston---------87
Worcester----------91
Michigan
Wayne (County)----------94
New York
New York----------113
Ohio
Akron----------128
Columbus----------123

INSOLUBLES, DUSTFALL
(Cont'd.)
Pennsylvania
Avalon----------134
Lebanon----------138
New Kensington----------141
Oil City----------141
Philadelphia----------140
Pittsburgh----------135
Tennessee
Nashville----------148
Wisconsin
Green Bay----------168

IRON (Fe) DUSTFALL
Michigan
Detroit----------95
Texas
El Paso----------153

IRON (Fe) SUSPENDED
PARTICULATE
Tennessee
Chattanooga----------149
(See also "Metals",
Suspended Particulate)

IRON & ALUMINUM OXIDE,
DUSTFALL
Kentucky
Louisville----------73

IRON OXIDE, DUSTFALL
Ohio
Cleveland----------122

LEAD (Pb) SUSPENDED PARTICULATE
(See also "Metals", Suspended
Particulate)
California
Berkeley----------7

LEAD (Pb) SUSPENDED PARTICULATE (Cont'd.)
(See also "Metals", Suspended Particulate)
California (Cont'd.)
Mt. Hamilton----------42
San Diego----------37
New York
New York----------114
Ohio
Cincinnati----------125

MAGNESIUM (Mg) DUSTFALL
Texas
El Paso----------153

MANGANESE (Mn), SUSPENDED PARTICULATE (See also "Metals" Suspended Particulate)
New York
New York----------114
Pennsylvania
Avalon----------134

MAGNESIUM CARBONATE, SUSPENDED PARTICULATE
California
Santa Cruz (County)------43

MAGNESIUM OXIDE, DUSTFALL
Kentucky
Louisville----------73

MANGANESE (Mn) DUSTFALL
New York
New York----------113

METALS, DUSTFALL
Oklahoma
Tulsa----------130

METALS, SUSPENDED PARTICULATE (Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V, and Zn.)
Alabama
Birmingham----------1
Ft. Morgan (N.U.)----------1
Mobile----------1
Montgomery----------1
Alaska
Anchorage----------3
Point Woronzof (Cook Inlet) (N.U.)----------3
Arizona
Phoenix----------4,5
Arkansas
Little Rock----------6
California
Berkeley----------7,8
Fresno----------10
Glendale----------18
Long Beach----------20
Los Angeles----------22
Oakland----------8
Pasadena----------24
Richmond----------9
Sacramento----------35
San Bernadino----------36
San Diego----------38
San Francisco----------39
San Jose----------43
San Leandro----------8
Stockton----------40
Colorado
Denver----------50
Mesa Verde Nat'l. Park (N.U.)----------50
Connecticut
Bridgeport----------51

METALS, SUSPENDED PARTICULATE (Cont'd.)
Connecticut (Cont'd.)
Hartford----------51
New Britain----------52
New Haven----------52
Stamford----------51
Waterbury----------53
Delaware
Wilmington----------55
District of Columbia
Washington----------56
Florida
Florida Keys (N.U.)------57
Jacksonville----------57
Miami----------57
Orlando----------58
Tampa----------57
Georgia
Atlanta----------59
Augusta----------60
Columbus----------59
Macon----------59
Savannah----------59
Hawaii
Honolulu----------62
Idaho
Boise----------65
Craters of the Moon Nat'l. Monument (N.U.)---65
Illinois
Chicago----------66
East St. Louis----------67
Peoria----------66
Rockford----------67
Springfield----------67
Indiana
East Chicago----------68
Evansville----------69
Ft. Wayne----------68

METALS, SUSPENDED PARTICULATE (Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, and Zn.) (Cont'd.)
Indiana (Cont'd.)
Gary----68
Hammond----68
Indianapolis----69
South Bend----69
Terre Haute----70
Iowa
Davenport----71
Des Moines----71
Kansas
Hays (N.U.)----72
Topeka----72
Wichita----72
Kentucky
Cumberland Falls State Park (N.U.)----75
Louisville----74
Louisiana
Baton Rouge----77
New Orleans----77
Shreveport----77
Maine
Acadia Nat'l. Park (N.U.)----79
Portland----79
Maryland
Baltimore----80
Massachusetts
Boston----90
Brockton----89
Cambridge----86
Fall River----84
Lawrence----85
Lowell----87
Lynn----86

METALS, SUSPENDED PARTICULATE (Cont'd.)
Massachusetts (Cont'd.)
New Bedford----85
Quincy----89
Somerville----87
Springfield----86
Worcester----91
Michigan
Dearborn----94
Detroit----95
Flint----93
Grand Rapids----94
Jackson----93
Kalamazoo----93
Lansing----93
Saginaw----94
Sleeper State Park (N.U.)----93
Minnesota
Duluth----97
Minneapolis----97
St. Paul----97
Superior National Forest (N.U.)----97
Mississippi
Jackson----98
Missouri
Kansas City----99
Missouri State Forest (N.U.)----100
Montana
Helena----101
Nebraska
Lincoln----103
Omaha----103
Nevada
Las Vegas----104
New Hampshire
Manchester----105

METALS, SUSPENDED PARTICULATE (Cont'd.)
New Jersey
Atlantic City----106
Camden----106
Elizabeth----108
Jersey City----107
Lakehurst----107
Newark----106
Paulsboro----106
Perth Amboy----107
Trenton----107
New Mexico
Albuquerque----109
New York
Binghamton----110
Buffalo----111
New York----114
Schenectady----116
Syracuse----115
Utica----115
North Carolina
Asheville----119
Charlotte----119
Greensboro----119
Raleigh----120
Winston-Salem----119
North Dakota
Bismark----121
Upper Souris Nat'l. Wildlife Refuge (N.U.)----121
Ohio
Canton----128
Cincinnati----125
Cleveland----122
Columbus----124
Dayton----127
Hamilton----122
Lorain----126
Springfield----122

METALS, SUSPENDED PARTICULATE (Sb, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sr, Sn, Ti, V) (Cont'd.)
Ohio (Cont'd.)
Toledo----------126
Youngstown----------127
Oklahoma
Oklahoma City----------130
Tulsa----------130
Oregon
Cape Blanco (N.U.)------131
Portland----------133
Pennsylvania
Allentown----------139
Altoona----------137
Bristol----------137
Chester----------138
Erie----------138
Harrisburg----------137
Johnstown----------137
Philadelphia----------140
Pittsburgh----------136
Reading----------136
Scranton----------138
Wilkes Barre----------139
Williamsport----------139
York----------141
Puerto Rica
San Juan----------144
Rhode Island
Providence----------145
South Carolina
Charleston----------146
Columbia----------146
Greenville----------146
South Dakota
Black Hills National Forest (N.U.)----------147
Sioux Falls----------147

METALS, SUSPENDED PARTICULATE (Cont'd.)
Tennessee
Chattanooga----------149
Ft. Donelson----------150
Knoxville----------150
Memphis----------150
Nashville----------148
Texas
Austin----------156
Beaumont----------156
Dallas----------152
El Paso----------153
Ft. Worth----------157
Galveston----------154
Houston----------155, 156
Port Lavaca (N.U.)------152
San Antonio----------152
Texas City----------154
Waco----------156
Utah
Bryce Canyon Nat'l. Park (N.U.)----------159
Salt Lake City----------159
Vermont
Burlington----------160
Mt. Mansfield State Park (N.U.)----------160
Virginia
Hampton----------161
Norfolk----------162
Richmond----------161
Roanoke----------162
Washington
Cape Flattery Air Force Station (N.U.)----164
Seattle----------164
Tacoma----------165
West Virginia
Charleston----------167
Huntington----------167
Wheeling----------167

METALS, SUSPENDED PARTICULATE (Cont'd.)
Wisconsin
Madison----------168
Milwaukee----------168
Racine----------169
Wyoming
Cheyenne----------170
Yellowstone Nat'l. Park (N.U.)----------170

MOLYBDENUM (Mo) SUSPENDED PARTICULATE (See also "Metals", Suspended Particulate)
New York
New York----------114

N.A.S.N. - 1, SUSPENDED PARTICULATE (See Appendix D)
Kansas
Kansas City----------72
Maryland
Baltimore----------80
Massachusetts
Pittsfield----------84
Michigan
Detroit----------95
Missouri
Breckenridge----------99
Brentwood----------99
Ohio
Youngstown----------127
West Virginia
Wheeling----------167

N.A.S.N. - 2, SUSPENDED PARTICULATE (See Appendix D)
Alaska
Point Woronzof (Cook Inlet) (N.U.)----------3

N.A.S.N. - 2, SUSPENDED PARTICULATE (Cont'd.)

Arizona
Grand Canyon Nat'l. Park (N.U.)----4
Arkansas
Quachita Nat'l. Forest (N.U.)----6
California
Trinidad Head (N.U.)----11
Connecticut
Wigwam Reservoir (N.U.)-52
Delaware
Bombay Hook Nat'l. Wildlife Refuge (N.U.)--55
Georgia
Oatland Island (N.U.)---59
Hawaii
Barber's Point (N.U.)---63
Waimanalo (N.U.)----63
Illinois
Lake Springfield----67
Indiana
Turkey Run State Park (N.U.)----69
Iowa
Backbone State Park (N.U.)----71
Louisiana
St. Tammany (Parish) (N.U.)----77
Massachusetts
Nantucket Island (N.U.)-88
Mississippi
Ocean Springs (N.U.)---98
Montana
Glacier Nat'l. Park (N.U.)----101
Nebraska
Nebraska Nat'l. Forest (N.U.)----103

N.A.S.N. - 2, SUSPENDED PARTICULATE (Cont'd.)

Nevada
Lehman Caves Nat'l. Monument (N.U.)----104
New Jersey
Cape May (N.U.)----106
New Mexico
Philmont Scout Ranch (N.U.)----109
New York
Albany----110
Cape Vincent (N.U.)----111
Rochester----112
Yonkers----117
North Carolina
Cape Hatteras (N.U.)---119
Ohio
Akron----128
Perry Nat'l. Monument (N.U.)----128
Oklahoma
Lawton (N.U.)----130
Pennsylvania
Cook State Forest (N.U.)137
Puerto Rico
Loquillo Mt. (N.U.)----144
Rhode Island
Pine Hill Fire Tower (N.U.)----145
Virginia
Shenandoah Nat'l. Park (N.U.)----162
West Virginia
Holly River State Park (N.U.)----167
Wisconsin
Peninsula State Park (N.U.)----168

N.A.S.N. - 2A, SUSPENDED PARTICULATE (See Appendix D)

Alabama
Birmingham----1
Fort Morgan (N.U.)----1
Alaska
Anchorage----3
Point Woronzof (Cook Inlet) (N.U.)----3
Arizona
Grand Canyon Nat'l. Park (N.U.)----4
Maricopa County (N.U.)---4
Arkansas
Little Rock----6
Quachita Nat'l. Forest (N.U.)----6
California
Los Angeles----22
San Diego----38
San Francisco----39
San Jose----43
Trinidad Head (N.U.)----11
Colorado
Denver----50
Mesa Verde Nat'l. Park (N.U.)----50
Connecticut
Hartford----51
New Haven----52
Wigwam Reservoir (N.U.)-52
Delaware
Bombay Hook Nat'l. Wildlife Refuge (N.U.)--55
Wilmington----55
District of Columbia
Washington----56
Florida
Tampa----57
Florida Keys (N.U.)----57

N.A.S.N. - 2A, SUSPENDED PARTICULATE (Cont'd.)

Georgia
Atlanta----59
Oatland Island (N.U.)----59
Hawaii
Barber's Point (N.U.)----63
Idaho
Boise----65
Craters of the Moon Nat'l. Monument (N.U.)---65
Illinois
Chicago----66
Lake Sprinfgield (N.U.)--67
Indiana
Indianapolis----69
Turkey Run State Park (N.U.)----69
Iowa
Backbone State Park (N.U.)----71
Des Moines----71
Kansas
Wichita----72
Kentucky
Cumberland Falls State Park (N.U.)----75
Louisville----74
Louisiana
New Orleans----77
Tangipahoa Parish (N.U.)-77
Maine
Acadia Nat'l. Park (N.U.)----79
Portland----79
Maryland
Baltimore----80
Solomon's Island (N.U.)--81

N.A.S.N. - 2A, SUSPENDED PARTICULATE (Cont'd.)

Massachusetts
Boston----90
Nantucket Island (N.U.)--88
Springfield----86
Worcester----91
Michigan
Detroit----95
Flint----95
Grand Rapids----94
Sleeper State Park (N.U.)----93
Minnesota
Duluth----97
Minneapolis----97
Superior Nat'l. Forest (N.U.)----97
Mississippi
Jackson----98
Ocean Springs (N.U.)----98
Missouri
Kansas City----99
Missouri State Forest (N.U.)----100
St. Louis----99
Montana
Glacier Nat'l. Park (N.U.)----101
Helena----101
Nebraska
Nebraska Nat'l. Forest (N.U.)----103
Omaha----103
Nevada
Las Vegas----104
Lehman Caves Nat'l. Monument (N.U.)----104

N.A.S.N. - 2A, SUSPENDED PARTICULATE (Cont'd.)

New Hampshire
Manchester----105
White Mountain Nat'l. Forest (N.U.)----105
New Jersey
Cape May (N.U.)----106
Bayonne----107
Paterson----108
New Mexico
Albuquerque----109
Philmont Scout Ranch----109
New York
Cape Vincent (N.U.)----111
North Carolina
Cape Hatteras (N.U.)----119
Charlotte----119
North Dakota
Bismark----121
Upper Souris Nat'l. Wildlife Refuge (N.U.)---121
Ohio
Cincinnati----125
Cleveland----122
Columbus----124
Dayton----127
Perry Nat'l Monument (N.U.)----128
Toledo----126
Youngstown----127
Oklahoma
Tulsa----130
Oregon
Cape Blanco (N.U.)----131
Portland----133

N.A.S.N. - 2A, SUSPENDED PARTICULATE (Cont'd.)
Pennsylvania
Altoona----------137
Cook State Forest (N.U.)----------137
Erie----------138
Philadelphia----------140
Pittsburgh----------136
Scranton----------138
Puerto Rico
Loquillo Mtn. (N.U.)-----144
Rhode Island
Pine Hill Fire Tower (N.U.)----------145
Providence----------145
South Carolina
Columbia----------146
Sand Hill Animal Disease Laboratory (N.U.)--------146
South Dakota
Black Hills Nat'l. Forest (N.U.)----------147
Sioux Falls----------147
Tennessee
Chattanooga----------149
Ft. Donelson----------150
Nashville----------148
Texas
Dallas----------152
Houston----------155
Port Lavaca (N.U.)-------152
San Antonio----------152
Utah
Bryce Canyon Nat'l. Park (N.U.)----------159
Vermont
Burlington----------160

N.A.S.N. - 2A, SUSPENDED PARTICULATE (Cont'd.)
Virginia
Danville----------162
Norfolk----------162
Richmond----------161
Shenandoah Nat'l. Park (N.U.)----------162
Washington
Cape Flattery Air Force Station (N.U.)-----164
Seattle----------164
West Virginia
Charleston----------167
Holly River State Park (N.U.)----------167
Wisconsin
Milwaukee----------168
Penninsula State Park (N.U.)----------168
Wyoming
Cheyenne----------170
Yellowstone Nat'l. Park (N.U.)----------170

N.A.S.N. - 3, SUSPENDED PARTICULATE (See Appendix D)
New York
Buffalo----------111

N.A.S.N. - 3A, SUSPENDED PARTICULATE (See Appendix D)
California
Los Angeles----------22
Hawaii
Honolulu----------62
Indiana
Indianapolis----------69
Iowa
Des Moines----------71

N.A.S.N. - 3A, SUSPENDED PARTICULATE (Cont'd.)
Kansas
Wichita----------72
New Hampshire
Manchester----------105
North Carolina
Charlotte----------119
North Dakota
Bismark----------121
Ohio
Cleveland----------122
Oklahoma
Tulsa----------130
Virginia
Norfolk----------162
West Virginia
Charleston----------167
Wyoming
Cheyenne----------170

N.A.S.N. - 5, SUSPENDED PARTICULATE (See Appendix D)
Alabama
Birmingham----------1
Ft. Morgan (N.U.)---------1
Alaska
Anchorage----------3
California
Los Angeles----------22
Colorado
Denver----------50
Mesa Verde Nat'l. Park (N.U.)----------50
Florida
Tampa----------57
Florida Keys (N.U.)------57
Georgia
Atlanta----------59

N.A.S.N. - 5 SUSPENDED PARTICULATE (Cont'd.)
Idaho
Craters of the Moon Nat'l. Monument (N.U.)----65
Illinois
Chicago----66
Indiana
Indianapolis----69
Iowa
Des Moines----71
Kansas
Hays (N.U.)----72
Wichita----72
Kentucky
Cumberland Falls State Park (N.U.)----75
Louisiana
New Orleans----77
Maine
Acadia Nat'l. Park (N.U.)----79
Maryland
Baltimore----80
Massachusetts
Boston----90
Michigan
Detroit----95
Sleeper State Park (N.U.)----93
Minnesota
Minneapolis----97
Superior Nat'l. Forest (N.U.)----97
Missouri
Missouri State Forest (N.U.)----100
St. Louis----99

N.A.S.N. - 5 SUSPENDED PARTICULATE (Cont'd.)
New Hampshire
Manchester----105
New York
New York----114
North Carolina
Charlotte----119
North Dakota
Bismark----121
Upper Souris Nat'l. Wildlife Refuge (N.U.)----121
Ohio
Cleveland----122
Oklahoma
Tulsa----130
Oregon
Cape Blanco (N.U.)----131
Portland----133
Pennsylvania
Philadelphia----140
South Dakota
Black Hills Nat'l. Forest (N.U.)----147
Tennessee
Ft. Donelson----150
Nashville----148
Texas
Houston----155
Port Lavaca (N.U.)----152
Utah
Bryce Canyon Nat'l. Park (N.U.)----159
Salt Lake City----159
Vermont
Mt. Mansfield State Park (N.U.)----160

N.A.S.N. - 5 SUSPENDED PARTICULATE (Cont'd.)
Washington
Cape Flattery Air Force Station (N.U.)----164
Seattle----164
Tacoma----165
Wisconsin
Milwaukee----168
Wyoming
Cheyenne----170
Yellowstone Nat'l. Park (N.U.)----170

N.A.S.N. - 5A, SUSPENDED PARTICULATE (See Appendix D)
Ohio
Youngstown----127
Tennessee
Nashville----148
Wisconsin
Milwaukee----168

N.A.S.N. - 6, SUSPENDED PARTICULATE (See Appendix D)
Alabama
Birmingham----1
Colorado
Denver (County)----50
Florida
Tampa----57
Tampa Airport----57
Hawaii
Honolulu----62
Illinois
Chicago----66
Kentucky
Louisville----74

N.A.S.N. - 6, SUSPENDED PARTICULATE (Cont'd.)
Louisiana
New Orleans----------77
Massachusetts
Boston----------90
Everett----------87
Minnesota
Minneapolis----------97
Oregon
Portland----------133
Texas
Bellaire----------154
Ft. Worth----------157
Houston----------155
Utah
Salt Lake City---------159
West Virginia
Charleston----------167
Charleston Airport-----167

N.A.S.N. - 7, SUSPENDED PARTICULATE (See Appendix D)
Alaska
Point Woronzof (Cook Inlet) (N.U.)----------3
California
Pasadena----------24
San Francisco----------39
San Jose----------43
San Leandro----------8
Connecticut
Waterbury----------53
Georgia
Atlanta----------59
Illinois
East St. Louis---------67
Missouri
Kansas City----------99
New York
New York----------114

N.A.S.N. - 7, SUSPENDED PARTICULATE (Cont'd.)
Ohio
Cincinnati----------125
Tennessee
Chattanooga----------149

N.A.S.N. - 8, SUSPENDED PARTICULATES (See Appendix D)
Arizona
Grand Canyon Nat'l. Park (N.U.)----------4
Connecticut
New Haven----------52
Florida
Florida Keys (N.U.)------57
Georgia
Oatland Island (N.U.)----59
Hawaii
Waimanalo (N.U.)---------63
Kansas
Hays (N.U.)----------72
Maryland
Pocomoke----------82
Solomon's Island (N.U.)----------81
Michigan
Sleeper State Park (N.U.)----------93
Minnesota
Minneapolis----------97
Mississippi
Ocean Springs (N.U.)-----98
Missouri
Kansas City----------99
Missouri State Forest (N.U.)----------100
Nebraska
Nebraska Nat'l. Forest (N.U.)----------103

N.A.S.N. - 8, SUSPENDED PARTICULATE (Cont'd.)
North Carolina
Cape Hatteras (N.U.)-----119
North Dakota
Upper Souris Nat'l. Wildlife Refuge (N.U.)----------121
Ohio
Perry Nat'l. Monument (N.U.)----------128
Puerto Rico
San Juan----------144
South Dakota
Black Hills Nat'l. Forest (N.U.)----------147
Tennessee
Ft. Donelson (N.U.)------150
Vermont
Burlington----------160
Mt. Mansfield State Park (N.U.)----------160
Virginia
Shenandoah Nat'l. Park (N.U.)----------162
West Virginia
Holly River State Park (N.U.)----------167

N.A.S.N. - 8A, SUSPENDED PARTICULATE (See Appendix D)
Alaska
Anchorage----------3
Point Woronzof (Cook Inlet) (N.U.)----------3
Arizona
Phoenix----------4
Arkansas
Little Rock----------6

N.A.S.N. - 8A, SUSPENDED PARTICULATE (Cont'd.)

California
Burbank----14
San Bernandino----36
San Diego----38
San Francisco----39
Colorado
Denver----50
Connecticut
Hartford----51
Delaware
Wilmington----55
Florida
Tampa----57
Georgia
Atlanta----59
Idaho
Boise----65
Craters of the Moon Nat'l. Monument (N.U.)----65
Illinois
Chicago----66
Lake Springfield (N.U.)----67
Indiana
East Chicago----68
Kansas
Kansas City----72
Kentucky
Louisville----74
Louisiana
New Orleans----77
Maine
Acadia Nat'l. Park (N.U.)----79
Portland----79
Maryland
Baltimore----80

N.A.S.N. - 8A, SUSPENDED PARTICULATE (Cont'd.)

Massachusetts
Boston----90
Michigan
Detroit----95
Minnesota
Superior Nat'l. Forest (N.U.)----97
Mississippi
Jackson----98
Missouri
St. Louis----99
Montana
Helena----101
Nebraska
Omaha----103
Nevada
Las Vegas----104
New Jersey
Camden----106
East Orange----106
Newark----106
New Mexico
Albuquerque----109
Ohio
Cincinnati----125
Columbus----124
Oregon
Portland----133
Pennsylvania
Philadelphia----140
Pittsburgh----136
Lancaster----138
South Dakota
Sioux Falls----147
Tennessee
Chattanooga----149

N.A.S.N. - 8A, SUSPENDED PARTICULATE (Cont'd.)

Texas
Corpus Christi----157
Dallas----152
Houston----155
Port Lavaca (N.U.)----152
San Antonio----152
Utah
Salt Lake City----159
West Virginia
Wheeling----167
Wyoming
Yellowstone Nat'l. Park (N.U.)----170

N.A.S.N. - 9, SUSPENDED PARTICULATE (See Appendix D)

Connecticut
Bridgeport----51
Illinois
East St. Louis----67
Indiana
East Chicago----68
Gary----68
Terre Haute----70
Minnesota
St. Paul----97

N.A.S.N. - 9A, SUSPENDED PARTICULATE (See Appendix D)

California
Pasadena----24
Florida
Miami----57
Georgia
Columbus----59
Illinois
Springfield----67

N.A.S.N. - 9A, SUSPENDED PARTICULATE (Cont'd.)

Indiana
- Evansville----------69
- Ft. Wayne----------68

Michigan
- Grand Rapids----------94
- Kalamazoo----------93

Nebraska
- Lincoln----------103

New Jersey
- Jersey City----------107

Ohio
- Canton----------128

Pennsylvania
- Allentown----------139
- Johnston----------137

Tennessee
- Knoxville----------150

Wisconsin
- Racine----------169

N.A.S.N. - 10, SUSPENDED PARTICULATE (See Appendix D)

Alabama
- Mobile----------1

California
- Fresno----------10
- Long Beach----------20
- Oakland----------8
- Richmond----------9
- Sacramento----------35
- Stockton----------40

Connecticut
- Waterbury----------53

Florida
- Jacksonville----------57

Georgia
- Augusta----------60
- Macon----------59

N.A.S.N. - 10, SUSPENDED PARTICULATE (Cont'd.)

Illinois
- Peoria----------66

Iowa
- Davenport----------71

Massachusetts
- Brockton----------89
- Fall River----------84
- Quincy----------89

Michigan
- Jackson----------93
- Saginaw----------94

New Jersey
- Atlantic City----------106
- Elizabeth----------108

North Carolina
- Asheville----------119
- Greensboro----------119

Ohio
- Dayton----------127
- Springfield----------122

Oklahoma
- Oklahoma City----------130

Pennsylvania
- Harrisburg----------137
- Reading----------136
- Wilkes-Barre----------139

Tennessee
- Memphis----------150

Texas
- Austin----------157
- Ft. Worth----------157
- Waco----------156

Virginia
- Hampton----------161

West Virginia
- Huntington----------167

N.A.S.N. - 10A, SUSPENDED PARTICULATE (See Appendix D)

Alabama
- Montgomery----------1

Arizona
- Phoenix----------4

California
- Berkeley----------7
- Glendale----------18
- San Bernardino----------36

Connecticut
- New Britain----------52

Florida
- Miami----------57
- Orlando----------58

Georgia
- Savannah----------59

Illinois
- Rockford----------67

Indiana
- East Chicago----------68
- Hammond----------68
- South Bend----------69

Kansas
- Topeka----------72

Louisiana
- Shreveport----------77

Massachusetts
- Cambridge----------86
- Lowell----------87
- Lynn----------86
- New Bedford----------85

Michigan
- Dearborn----------94

New Jersey
- Jersey City----------107
- Newark----------106

North Carolina
- Raleigh----------120

N.A.S.N. - 10A, SUSPENDED PARTICULATE (Cont'd.)

Ohio
Canton----------128
Hamilton----------122
Pennsylvania
Allentown----------139
Johnstown----------137
York----------141
Puerto Rico
San Juan----------144
South Carolina
Charleston----------146
Tennessee
Knoxville----------150
Texas
Beaumont----------156
Galveston----------154
Texas City----------154
Virginia
Roanoke----------162
West Virginia
Wheeling----------167
Wisconsin
Madison----------168

N.A.S.N. - 10B, SUSPENDED PARTICULATE (See Appendix D)

California
San Jose----------43
Connecticut
Stamford----------51
Louisiana
Baton Rouge----------77
Massachusetts
Springfield----------86
Worcester----------91
Michigan
Flint----------93
Lansing----------93

N.A.S.N. - 10B, SUSPENDED PARTICULATE (Cont'd.)

Minnesota
Duluth----------97
New York
Binghamton----------110
Buffalo----------111
Schenectady----------116
Syracuse----------115
Utica----------115
North Carolina
Winston-Salem----------119
Ohio
Lorain----------126
Toledo----------126
Pennsylvania
Scranton----------138
Rhode Island
Providence----------145
South Carolina
Columbia----------146
Greenville----------146
Texas
El Paso----------153
Virginia
Richmond----------161

N.A.S.N. - 11, SUSPENDED PARTICULATE (See Appendix D)

District of Columbia
Washington----------56
Indiana
East Chicago----------68
Missouri
St. Louis----------99
New Jersey
Camden----------106
Elizabeth----------108
Jersey City----------107
Lakehurst----------107

N.A.S.N. - 11, SUSPENDED PARTICULATE (Cont'd.)

New Jersey (Cont'd.)
Paulsboro----------106
Perth Amboy----------107
Trenton----------107
Pennsylvania
Altoona----------137
Bristol----------137
Chester----------138
Erie----------138
Philadelphia----------140
Pittsburgh----------136
Williamsport----------139

N.A.S.N. - 12, SUSPENDED PARTICULATE (See Appendix D)

Arizona
Phoenix----------4
Arkansas
Little Rock----------6
California
San Diego----------38
San Francisco----------39
Connecticut
Hartford----------51
New Haven----------52
Delaware
Wilmington----------55
District of Columbia
Washington----------56
Hawaii
Honolulu----------62
Idaho
Boise----------65
Maine
Portland----------79
Mississippi
Jackson----------98

N.A.S.N. - 12, SUSPENDED PARTICULATE (Cont'd.)
Missouri
Kansas City----------99
Montana
Helena----------101
Nebraska
Omaha----------103
Nevada
Las Vegas----------104
New Mexico
Albuquerque----------109
Ohio
Cincinnati----------125
Columbus----------124
Youngstown----------127
Pennsylvania
Pittsburgh----------136
Rhode Island
Providence----------145
South Dakota
Sioux Falls----------147
Tennessee
Chattanooga----------149
Texas
Dallas----------152
San Antonio----------152
Vermont
Burlington----------160
Virginia
Norfolk----------162
West Virginia
Charleston----------167

N.A.S.N. - 13, SUSPENDED PARTICULATE (See Appendix D)
New Jersey
Newark----------106
New York
New York----------114

N.A.S.N. - 13, SUSPENDED PARTICULATE (Cont'd.)
Puerto Rico
San Juan----------144
South Carolina
Columbia----------146

NICKEL (Ni)SUSPENDED PARTICULATE
(See also "Metals", Suspended Particulate)
California
Berkeley----------8
Mt. Hamilton----------42
San Diego----------38
New York
New York----------114

NITRATES, DUSTFALL
New York
New York----------113
Texas
El Paso----------153

NITRATES, SUSPENDED PARTICULATE
Alabama
Birmingham----------1
Ft. Morgan (N.U.)--------1
Mobile----------1
Montgomery----------1
Alaska
Anchorage----------3
Point Woronzof (Cook Inlet) (N.U.)----------3
Arizona
Grand Canyon Nat'l. Park (N.U.)----------4
Phoenix----------4

NITRATES, SUSPENDED PARTICULATE (Cont'd.)
Arkansas
Little Rock----------6
California
Berkeley----------7, 8
Burbank----------14
Crescent City----------10
El Cajon----------37
Fresno----------10
Glendale----------18
Long Beach----------20
Los Angeles----------22
Mt. Hamilton----------42
National City----------37
Oakland----------8
Pasadena----------24
Piedras Blancas Light Station----------41
Richmond----------9
Sacramento----------35
San Bernardino----------36
San Diego----------38
San Francisco--------39, 40
San Jose----------43
San Leandro----------8
San Nicolas Island-------45
Santa Cruz----------43
Santa Cruz (County)------43
Stockton----------40, 41
Trinidad Head (N.U.)-----11
Watsonville----------44
Colorado
Denver----------50
Mesa Verde Nat'l. Park (N.U.)----------50
Connecticut
Bridgeport----------51
Hartford----------51
New Britain----------52

NITRATES, SUSPENDED PARTICULATE (Cont'd.)
Connecticut (Cont'd.)
New Haven----52
Stamford----51
Waterbury----53
Delaware
Wilmington----55
Florida
Florida Keys (N.U.)----57
Jacksonville----57
Miami----57
Orlando----58
Tampa----57
Georiga
Atlanta----59
Augusta----60
Columbus----59
Macon----59
Oatland Island (N.U.)---59
Savannah----59
Hawaii
Honolulu----62
Waimanalo (N.U.)----63
Idaho
Boise----65
Craters of the Moon Nat'l. Monument (N.U.)----65
Illinois
Chicago----66
East St. Louis----67
Lake Springfield (N.U.)----67
Peoria----66
Rockford----67
Springfield----67
Indiana
East Chicago----68
Evansville----69
Ft. Wayne----68

NITRATES, SUSPENDED PARTICULATE (Cont'd.)
Indiana (Cont'd.)
Gary----68
Hammond----68
Indianapolis----69
South Bend----69
Terre Haute----70
Iowa
Davenport----71
Des Moines----71
Kansas
Hays (N.U.)----72
Kansas City----72
Topeka----72
Wichita----72
Kentucky
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Montgomery----------1
Alaska
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Perry Nat'l. Monument (N.U.)----128
St. Bernard----126
Springfield----122
Toledo----126
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Oklahoma City----130
Tulsa----130
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Cape Blanco (N.U.)----131
Portland----133
Pennsylvania
Allentown----139
Altoona----137
Bristol----137
Chester----138
Erie----138
Harrisburg----137
Johnstown----137

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Philadelphia----140
Pittsburgh----136
Reading----136
Scranton----138
Wilkes-Barre----139
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Puerto Rico
San Juan----144
Rhode Island
Providence----145
South Carolina
Charleston----146
Columbia----146
Greenville----146
South Dakota
Black Hills Nat'l. Forest (N.U.)----147
Sioux Falls----147
Tennessee
Chattanooga----149
Ft. Donelson (N.U.)----150
Knoxville----150
Memphis----150
Nashville----148,149
Texas
Austin----157
Beaumont----156
Corpus Christi----157
Dallas----152
El Paso----153
Ft. Worth----157
Galveston----154
Houston----155,156
Port Lavaca (N.U.)----152
San Antonio----152
Texas City----154
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SULFATES, SUSPENDED PARTICULATE (Cont'd.)
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Bryce Canyon Nat'l. Park (N.U.)----159
Salt Lake City----159
Vermont
Burlington----160
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Hampton----161
Norfolk----162
Richmond----161
Roanoke----162
Shenandoah Nat'l. Park (N.U.)----162
Washington
Cape Flattery Air Force Station (N.U.)----164
Seattle----164
Tacoma----165
West Virginia
Charleston----167
Huntington----167
Holly River State Park (N.U.)----167
Wheeling----167
Wisconsin
Madison----168
Milwaukee----168
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Wyoming
Cheyenne----170
Yellowstone Nat'l. Park (N.U.)----170

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Arizona
Phoenix----4
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Burbank----14
Dominguez----15
Downey----16
El Segundo----18
Lennox----19
Long Beach----20
Los Angeles----22
Ontario----35
Oxnard----45
Pasadena----24
Pico Rivera----25
Riverside----35
San Bernardino----36
San Diego----38
Torrance----29
Vernon----31
Florida
Polk (County)----58
Hawaii
Honolulu----62
Illinois
Chicago----66
Kentucky
Louisville----74
Maryland
Baltimore----80
Edgemeer----80
Massachusetts
Boston----90
Michigan
Detroit----95
New Hampshire
Berlin----105
New York
New York----113
Ohio
Cincinnati----124
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Pennsylvania
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Seward----------141
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El Paso----------153
Houston----------155
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Pennsylvania
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Bessemer----------1
Birmingham----------1
Ft. Morgan----------1
Alaska
Anchorage----------3
Point Woronzof (Cook Inlet) (N.U.)----------3
Arizona
Grand Canyon Nat'l. Park (N.U.)----------4
Maricopa (County)----------4
Phoenix----------4,5
Tucson----------5
Arkansas
Little Rock----------6
Quachita Nat'l. Forest (N.U.)----------6

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Azusa----------13
Bakersfield----------11
Berkeley----------7,8
Burbank----------14
Crescent City----------10
Dominguez----------15
El Cajon----------37
El Segundo----------18
Fresno----------10
Glendale----------18
Lennox----------19
Long Beach----------20
Los Angeles----------22
Martinez----------9
Merced----------32
Modesto----------45
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National City----------37
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Pasadena----------24
Pico Rivera----------26
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Richmond----------9
Riverside----------35
Sacramento----------35
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San Bernardino----------36
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San Leandro----------8,9
San Nicolas Island----------45,46
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Denver (County)----------50
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Connecticut
Bridgeport----------51
Hartford----------51
Middletown----------52
New Britain----------52
New Haven----------52
Stamford----------51
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Hammond----------68
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Wichita----------72
Kentucky
Cumberland Falls State
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Louisville----------74,75

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New Orleans----------77
St. Tammany Parish (N.U.)---77
Shreveport----------77
Tangipahoa Parish (N.U.)----77
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Portland----------79
Maryland
Baltimore----------80
Edgemeer----------81
Hagerstown----------81
Pocomoke----------82
Solomon's Island (N.U.)-----81
Westminster----------81
Massachusetts
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Braintree----------88
Brockton----------89
Cambridge----------86
Everett----------87
Fall River----------84
Lawrence----------85
Lowell----------87
Lynn----------86
Mansfield----------84
Milford----------90,91
Nantucket Island (N.U.)-----88
New Bedford----------85
Pittsfield----------84
Quincy----------89
Somnerville----------87
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Kalamazoo----------93
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(N.U.)----------97
Mississippi
Jackson----------98
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Brentwood----------99
Kansas City----------99
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(N.U.)----------100
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Glacier Nat'l. Park
(N.U.)----------101
Helena----------101
Nebraska
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(N.U.)----------103
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New Jersey
Atlantic City----------106
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Camden----------106
Cape May (N.U.)----------106
East Orange----------106
Elizabeth----------108
Jersey City----------107
Lakehurst----------107
Newark----------106
Paterson----------108
Paulsboro----------106
Perth Amboy----------107
Trenton----------107
New Mexico
Albuquerque----------109
Philmont Scout Ranch (N.U.)----------109
New York
Albany----------110
Attica----------117
Binghamton----------110
Buffalo----------111
Cape Vincent (N.U.)--------111
Elmira----------111
Glen Cove----------112
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Utica----------115
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Greensboro----------119
Raleigh----------120
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Upper Souris Nat'l. Wildlife Refuge (N.U.)-----121
Ohio
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Canton----------128
Cincinnati----------125
Cleveland----------122,123
Columbus----------124
Dayton----------127
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Lorain----------126
Perry Nat'l. Monument (N.U.)----------128
St. Bernard----------126
Sandusky----------123
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Oklahoma
Lawton (N.U.)----------130
Oklahoma City----------130
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Cape Blanco (N.U.)---------131
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Portland----------133
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Allentown----------139
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Lancaster----------138
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Philadelphia----------140
Pittsburgh----------136
Reading----------136
Scranton----------138
West Nanticope----------139
Wilkes-Barre----------139
Williamsport----------139
York----------141
Puerto Rico
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Pine Hill Fire Tower (N.U.)----------145
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South Carolina
Charleston----------146
Columbia----------146
Greenville----------146
Sand Hill Animal Disease Laboratory (N.U.)---------146
South Dakota
Black Hills Nat'l. Forest (N.U.)----------147
Sioux Falls----------147

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(Cont'd.)
Tennessee
Chattanooga----------149,150
Ft. Donelson----------150
Knoxville----------150
Memphis----------150
Nashville----------148,149
Texas
Austin----------157
Beaumont----------156
Bellaire----------154
Corpus Christi----------157
Dallas----------152
El Paso----------153
Ft. Worth----------157
Galveston----------154
Houston----------155,156
Port Lavaca (N.U.)---------152
San Antonio----------152
Texas City----------154
Waco----------156
Utah
Bryce Canyon Nat'l.
Park (N.U.)----------159
Salt Lake City----------159
Vermont
Burlington----------160
Mt. Mansfield State
Park (N.U.)----------160
Virginia
Bristol----------162
Covington----------161
Danville----------162
Hampton----------161
Norfolk----------162
Piney River----------161
Richmond----------161
Roanoke----------162
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(N.U.)----------162
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(Cont'd.)
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Cape Flattery Air Force
Station (N.U.)----------164
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Vancouver----------164
West Virginia
Charleston----------167
Charleston Airport---------167
Holly River State Park
(N.U.)----------167
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Wisconsin
Madison----------168
Milwaukee----------168
Peninsula State Park
(N.U.)----------168
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Cheyenne----------170
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New York
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New York----------114

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PARTICULATE
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PARTICULATE
(See also "METALS" Susp. Part.)
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Mt. Hamilton----------42
San Diego----------38
New York
New York----------114

VOLATILES, DUSTFALL
California
Berkeley----------7
Connecticut
Hartford----------51
Middletown----------52
Illinois
Chicago----------66
Michigan
Wayne (County)----------94
Ohio
Columbus----------123
Oregon
Eugene----------131
Portland----------132
Salem----------132

VOLATILES, SUSPENDED PARTICULATE
Massachusetts
Waltham & Weston----------88

WEIGHT, TOTAL, DUSTFALL
California
Azusa----------12
Berkeley----------7
Burbank----------13
Dominguez----------15
El Monte----------16

WEIGHT, TOTAL, DUSTFALL (Cont'd.)
California (Cont'd.)
Los Angeles----20
North Hollywood----23
Pico Rivera----25
Santa Cruz----43
Santa Cruz (County)----43
South Gate----27
Sun Valley----27
Temple City----28
Torrance----29
Van Nuys----30
Vernon----30
Watsonville----44
Connecticut
Hartford----51
Illinois
Chicago----66
Maryland
Edgemeer----80
Hagerstown----81
Westminster----81
Massachusetts
Boston----90
Brockton----89
Cambridge----86
Everett----86
Fall River----84
Lawrence----85
Lowell----87
Lynn----85
New Bedford----85
Pittsfield----84
Quincy----89
Sommerville----87
Springfield----86
Waltham & Weston----87
Worcester----91
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Wayne (County)----94

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New York----113
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Ohio
Akron----128
Cincinnati----124
Cleveland----122
Columbus----123
Dayton----127
Sandusky----123
Zanesville----128
Oklahoma
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Oregon
Eugene----131
Portland----132
Salem----132
Pennsylvania
Ambridge----136
Lehigh----139
Middleton----137
Seward----141
West Nanticope----139
Tennessee
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El Paso----153
Virginia
Covington----161
Washington
Seattle----164
Spokane----165
Vancouver----164
Wisconsin
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WEIGHT, TOTAL, SUSPENDED PARTICULATE
Alabama
Bessemer----1
Birmingham----1
Ft. Morgan (N.U.)----1
Mobile----1
Montgomery----1
Alaska
Anchorage----3
Port Woronzof (Cook Inlet) (N.U.)----3
Arizona
Grand Canyon Nat'l. Park (N.U.)----4
Maricopa County (N.U.)----4
Phoenix----4
Tucson----5
Arkansas
Little Rock----6
Quachita Nat'l. Forest (N.U.)----6
California
Berkeley----7,8
Burbank----14
Crescent City----10
El Cajon----37
Fresno----10
Glendale----18
Long Beach----20
Los Angeles----22
Martinez----9
Mt. Hamilton----42
National City----37
Oakland----8
Pasadena----24
Piedras Blancos Light Station (N.U.)----41
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San Bernardino----36

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California (Cont'd.)
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San Francisco----------39,40
San Jose----------43
San Leandro----------8
San Nicolas Island----------45
Santa Cruz----------43
Santa Cruz (County)----------43
Stockton----------40,41
Trinidad Head (N.U.)--------11
Watsonville----------44
Colorado
Denver----------50
Denver (County) (N.U.)------50
Mesa Verde Nat'l. Park (N.U.)----------50
Connecticut
Bridgeport----------51
Hartford----------51
Middletown----------52
New Britain----------52
New Haven----------52
Stamford----------51
Waterbury----------53
Wigwam Reservoir (N.U.)-----52
Delaware
Bombay Hook Nat'l. Wildlife Refuge (N.U.)----------55
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District of Columbia
Washington----------56
Florida
Florida Keys (N.U.)---------57
Jacksonville----------57
Miami----------57
Orlando----------58
Tampa----------57
Tampa Airport----------57

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Augusta----------60
Columbus----------59
Macon----------59
Oatland Island (N.U.)-------59
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Hawaii
Barber's Point (N.U.)-------63
Honolulu----------62,63
Idaho
Boise----------65
Craters of the Moon Nat'l. Monument (N.U.)------65
Illinois
Chicago----------66
East St. Louis----------67
Lake Springfield (N.U.)-----67
Peoria----------66
Rockford----------67
Indiana
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Gary----------68
Hammond----------68
Indianapolis----------69
South Bend----------68
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Backbone State Park (N.U.)--71
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Kansas
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New Orleans----------77
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Shreveport----------77
Tangipahoa Parish (N.U.)---77
Maine
Acadia Nat'l. Park (N.U.)--79
Portland----------79
Maryland
Baltimore----------80
Edgemeer----------81
Hagerstown----------81
Pocomoke City----------82
Solomon's Island (N.U.)----81
Westminster----------81
Massachusetts
Boston----------90
Braintree----------88
Brockton----------89
Cambridge----------86
Everett----------87
Fall River----------84
Lawrence----------85
Lowell----------87
Lynn----------86
Mansfield----------84
Milford----------90
Nantucket Island (N.U.)----88
New Bedford----------85
Pittsfield----------84
Quincy----------89
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Lansing----93
Saginaw----94
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Camden----106
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Elizabeth----108
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Lakehurst----107
Newark----106
Paterson----108
Paulsboro----106
Perth Amboy----107
Trenton----107
New Mexico
Albuquerque----109
Philmont Scout Ranch (N.U.)-109
New York
Albany----110
Binghamton----110
Buffalo----111
Cape Vincent (N.U.)----111
Elmira----111
Glen Cove----112
Massena----116
New York----114,115
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Lawton (N.U.)----130
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Pennsylvania
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McKeesport----135
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Pittsburgh----136
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Scranton----138
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Williamsport----139
York----141
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South Carolina
Charleston----146
Columbia----146
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Sand Hill Animal Disease Laboratory (N.U.)----146
South Dakota
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Tennessee
Chattanooga----149
Ft. Donelson (N.U.)----150
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Beaumont----156
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Dallas----152
El Paso----153
Ft. Worth----157
Galveston----154
Houston----155,156
Port Lavaca (N.U.)----152
San Antonio----152
Texas City----154
Waco----156
Utah
Bryce Canyon Nat'l. Park (N.U.)----159
Salt Lake City----159
Vermont
Burlington----160
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WEIGHT, TOTAL, SUSPENDED PARTICULATE (Cont'd.)
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Bellingham----166
Cape Flattery Air Force Station (N.U.)----164
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Wisconsin
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Wyoming
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